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Determining need for
POPULAR PUBLICATIONS
ON AGRICULTURE AND
HOME ECONOMICS

REPORT OF A STUDY OF SIX METHODS

- What do people ask?
- What's in the mail?
- What do agents want?
- What do leaders say?
- What about long-range plans?
- What do Extension specialists think?

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE ▪ FEDERAL EXTENSION SERVICE ▪ OFFICE OF INFORMATION

Foreword:

What popular publications should we print? The right answer is basic to effective Department and Cooperative Extension Service work. In 1955 a Department Publications Review Committee recommended that a study be made of procedures for a continuous sampling of the subject matter needs of the public for State and USDA publications. This is a report of this study. Six methods were tested. Those recommended for your use provide means for finding answers to the above question. We hope you will study the report and use the methods appropriate to your situation. Their use can result in more efficient and more effective publications.

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PREFACE

THE SITUATION

Popular publications are Big Business!

State Extension Services and the U. S. Department of Agriculture currently distribute about 40 million copies annually. Total cost--including printing, distribution, and author and editor time--makes it a multi-million dollar operation.

Are we printing the publications people need?

This is a question authors, editors, and administrators face continually. It's one we can't afford to ignore. It's especially critical when (1) we prepare publications which no one wants, and (2) we have many requests for publications not available.

THE PROBLEM

What publications should we issue? That's the problem. Public demand for information and limited printing budgets complicate the problem. We must ask such questions as these:

- Is publication "X" really needed? Whose opinion do we use? What <u>facts</u> do we have? Is there a greater need for other publications?

- Who needs the information?

- What facts should go into the publication? How do we know?

- How many pages are needed--how much detail?

- Which counties should receive copies of the publication?

- How many copies should we print?

- With a limited budget, which publications should get priority?

How can we answer these questions? We can use our own judgment--and that's what most authors, editors, and administrators have done in the past. Or we can try to develop methods that will give us more valid answers.

USDA INITIATES STUDY

The U. S. Department of Agriculture recognized this problem and the need for remedial action in its overall review of Departmental publications problems made in 1954. In August of 1955 it published a report of the findings of the Department Publications Review Committee. Recommendation 6 of this report states:

"That the Cooperative Extension Service, in cooperation with the Office of Information, explore the possibility of developing procedures for a continuous sampling of the subject matter needs of the public for State and USDA publications, this information to be used in planning publications needed (a) by each State, if desired, (b) by the USDA within various regions of the country, and (c) by USDA for use within the Nation as a whole. Data from such surveys, and from information on Land-Grant College publications requirements for Extension use, should constitute the nucleus of the USDA popular publications program. Other subjects which research brings to light or which are demanded by USDA administrative and educational needs would be added."

This recommendation was endorsed by the Extension Committee on Organization and Policy of the American Association of Land-Grant Colleges and State Universities. In April 1957, Federal Extension Service Administrator C. M. Ferguson appointed a committee to study methods of determining publications needs as a means of implementing this recommendation.

This committee considered 10 methods of collecting data about needs of the public for information. Five of the 10 were selected for testing and comparison; and a sixth method, already being tried by the Agricultural Research Service, was added.

The methods of collecting data that were tested and compared are:

1. Questions that people ask county extension agents.
2. Information that people request by mail from the United States Department of Agriculture.
3. Publications that county extension agents say are needed.
4. County extension plans of work.
5. County extension program projection reports.
6. ARS publications that State extension specialists say are needed.

These six methods cover two types of needs: (a) Needs that are subjects of inquiries from the public; and (b) needs that are recognized by leaders and extension workers, but not by the public. It is assumed that Methods 1 and 2 reflect recognized needs, and that the others reflect both recognized and unrecognized needs.

STATES HELP

Extension workers in five States cooperated in gathering data for Methods 1, 3, and 4; only one State had program projection plans available for Method 5; and all States cooperated in Method 6.

METHODS COMPARED

Data collected by the six methods have been compared for consistency of results, ease of obtaining the information, and usefulness of the findings in planning and preparing publications.

DETERMINING NEED FOR POPULAR PUBLICATIONS ON AGRICULTURE AND HOME ECONOMICS

Report of A Study of Six Methods

SUMMARY AND RECOMMENDATIONS

PURPOSE

The purpose of this study was to develop and test procedures for a continuous sampling of the need of the public for information as a basis for planning popular publications.

METHODS TESTED

Six methods of determining the needs of the public for information that can be provided through popular publications were selected for testing. They are:

1. Questions that people ask county extension agents.
2. Information that people request by mail from the United States Department of Agriculture.
3. Publications that county extension agents say are needed.
4. County extension plans of work.
5. County extension program projection reports.
6. ARS publications that State extension specialists say are needed.

The main question to be answered through comparison of these methods is: Which method, or combination of methods, provides the best means of determining the needs of the public for information?

A standard procedure was used in handling data collected through each method. Questions, or other indications of information needs, were recorded on 3 x 5 cards. One card was used for each question or indication of need.

A detailed system of classifying information was developed by the committee. It consisted of about 750 categories and served as a uniform scheme for classifying the cards. The number of questions or need indications were tabulated for each appropriate category on the classification list.

The methods of collecting data varied.

For Method 1 extension agents in 27 counties in five States--Massachusetts, Michigan, Mississippi, Oklahoma, and Washington--recorded on individual 3 x 5 cards the questions that people asked them during 13 sample weeks throughout 1958. Personnel at the Waltham Field Station in Massachusetts also recorded questions they received.

For Method 2 approximately one mail request out of each 100 received in the U. S. Department of Agriculture during 1958 was selected by a bi-weekly random sampling and the questions--or other indications of need--recorded, tabulated, and classified under the standard plan.

The purpose of Method 3 was to identify informational needs known to county agents but not to the general public. Agents were asked to list those needs.

Method 4 was expected to provide an indication of both present and future needs-- recognized and unrecognized needs. County extension plans of work were analyzed and the needs indicated were recorded on cards, as in Methods 1 and 2. The plans of work were from the same counties in which the county extension agents recorded questions people asked them.

Method 5 was studied because it might provide a longer-range view of needs of people for information than Method 4. Data from county program projection reports were recorded, tabulated, and classified, as in the other methods.

Data for Method 6 were obtained by sending lists of USDA Agricultural Research Service publications to State extension specialists and asking them to rate the publications on the basis of need for them in their States. Specialists were also asked to list additional publications they needed from the Agricultural Research Service and to rate them. Thirdly, specialists were asked to indicate questions that were not answered in existing publications, and questions that should be answered in new publications.

Because insufficient data were obtained from Methods 3 and 5, it is not possible to make valid comparisons of these two methods with the other methods tried. However, the data that were obtained are discussed in this report.

CRITERIA FOR JUDGING

Five criteria were developed to compare the different methods. These criteria measure both the validity and practicality of each method, and of each method for different purposes. The five criteria are:
  1. Requests of the public for information.
  2. Program needs.
  3. Breadth of need.
  4. Depth of detail.
  5. Feasibility.

COMPARISON OF METHODS

Method 1--Questions That People Ask County Extension Agents

Questions that people ask county extension agents show "felt needs" that they seek information on from the Extension Service. These are needs sufficiently pressing to motivate people to ask for help.

This method provided more detail than any of the other methods tested, and it gave the most complete sampling of breadth of need for the information. Using this method in a representative sample of counties would provide data that could be projected statewide or nationwide for determining number of publications needed on various subjects.

This method requires more organization and involves more people in collecting data than any of the other methods tried.

Method 2--Mail Requests

Mail requests to the USDA also show "felt needs" that people seek help on. Method 2--analysis of mail requests--ranked next to Method 1 in the amount of detail included in the questions and the breadth of need for the information. However, three-fourths of the mail requests asked for publications rather than answers to specific questions.

This method represents a sampling of about one-half million persons who write to the Department for information per year. It is a fairly easy method to use since it involves only those persons recording and tabulating the data at one central point.

Method 3--Extension Agents' Suggestions for Publications

Not enough data were available on county agents' suggestions for publications to draw conclusions. However, it seems reasonable that as county agents work with people in their counties they can sense and suggest publications needs that may not be reflected in the other methods.

Method 4--County Plans of Work

County extension plans of work presumably show both recognized and unrecognized needs of people in the county. However, data provided by plans of work are general in nature, lack detail, and seldom show how many people need the information.

County plans of work are readily available for analysis in the States.

Method 5--Program Projection Reports

County extension program projection reports did not provide enough data to make possible a comparison with other methods studied. It appears that, because of lack of detail in the data, this method is of little value as a guide in determining publications content. But further testing of a larger sample may show long-range needs for which publications might be prepared in advance.

Method 6--Specialists' Suggestions

State extension specialists' recommendations on, and rating of need for, ARS publications reflect information needs as they see them. Their recommendations might show both recognized and unrecognized needs of people--whether they do depends on how familiar the specialists are with questions the public is asking and how well they know unrecognized needs. Being specialists, they should be able to partially predict future informational needs in their subject-matter fields.

Like plans of work and program projection reports, this method lacks detail. It is a listing of publication titles. Content of suggested publications was not provided by this method. Neither did this method show the number of people needing the information.

Data are fairly easy to obtain by this method. However, regular contact with specialists in each subject-matter area is required to obtain the data. After specialists make their suggestions, the procedure for recording, tabulating, and classifying data is the same as used with other methods.

While this method did not include State publications that specialists feel are needed, it demonstrates a procedure for obtaining information on publication needs that can be adapted to State use.

Only Methods 1 and 2 provided enough detail to serve as guides on the content of needed publications. By studying the cards, authors and editors could find specific questions people want answered in publications.

It is interesting to note the findings and conclusions of a closely related study reported by Charles Lang, Michigan State University.[1] Purpose of his study was to determine the effectiveness of current Michigan State University agricultural and home economics publications in answering questions people ask county extension agents. He used data collected in the four Michigan counties participating in this study and interviewed a sample of persons who asked the questions recorded in Method 1.

Lang found that most people ask very specific questions requiring definite answers, rather than general questions requiring involved discussions as commonly included in many publications. More than 79% of available publications contained information on questions people asked extension agents. Of the questions asked, 61% were satisfactorily answered in currently available publications.

Lang concludes that simple, inexpensive fact sheets or folders appear more efficient for answering questions asked extension agents than do the more expensive-type publications. He adds that "continuous analysis of the type undertaken in this research should prove extremely valuable as a basis for publication planning."

Precise records of the time required for each method were not available. However, records were kept of the total time required for the mail analysis method. It appears that one worker can record information onto about 50 cards, classify and tabulate the data in an hour.

The committee feels that the questions asked county agents, and the mail requests, represent the public's concept of the type of information that the Department and extension agents can provide. The large number of agricultural production questions and the very small number of agricultural marketing questions may indicate that the public thinks of the Department and Extension more in terms of agricultural production information than in terms of marketing information.

DATA OBTAINED

Data available from each method show the relative demand for information by subject-matter areas--such as crops, livestock, foods, and nutrition.

Each of the four methods from which enough data were available for comparison showed that about two-thirds of the demand for information was on agricultural subjects and about one-third on home economics subjects.

Crop information accounted for about one-fifth of the demand from each method tried. Horticultural subjects ranked highest among crops--three-fourths to four-fifths of the demand.

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[1] "A Study of the Questions Asked of County Extension Agents in Four Michigan Counties and the Publications Available to Answer the Questions." Master of Science Thesis, Charles L. Lang, Michigan State University, 1959.

Most agricultural questions concerned production. There were very few marketing questions.

About <u>two-thirds</u> of the mail requests to the USDA carried city street addresses. We believe this indicates an increasing demand from urban residents for information that the Department and the colleges of agriculture and home economics can provide.

RECOMMENDATIONS

Educational programs of the colleges of agriculture and home economics and the U. S. Department of Agriculture are based on the needs of people. Tests of the six methods did not indicate that any one method would completely show the needs of people for information.

Publications Needs Committee Recommendations:

1. Use the methods appropriate to the situation for deciding subjects for which publications are needed.

2. Use the questions people ask county extension agents as a basis for determining recognized needs of people for information, and for deciding if publications are one of the methods that should be used to provide such information.

   Also use this method for deciding content, depth of detail, number of copies needed, printing priorities, counties (or States in the case of the USDA) needing copies of the publication, and time of year the information is needed.

   Use analysis of mail requests as a second choice for determining recognized needs for information, breadth of need, and time of need.

3. Use specialists' suggestions and, if practical, county agents' suggestions and county plans of work as a basis for determining unrecognized information needs of the public for which publications are needed. A practical way of doing this may be as follows:

   a. Have county extension agents suggest publications they feel are needed for educational work on unrecognized needs.

   b. Have specialists study plans of work and agents' suggestions and add suggestions for other publications they feel are needed.

   Even though the two methods suggested in a. and b. (above) may not always give comparable data, they will help guide those who must make the final decisions on what publications to print and what their content should be.

   CAUTION--Remember that questions people ask extension agents reflect the needs of only those people who go to the Extension Service for help, and the USDA mail requests reflect the needs of only those who write to the Department for information. Likewise, unrecognized needs contained in county extension plans of work, reported by county agents and by specialists also may be oriented to the kind of educational programs carried on by the Extension Service. We may need to sample the questions that people ask other informational sources to get a complete picture of needs for information that the Department and the colleges should provide.

Some Uses of Data

Now let's take a more detailed look at some of the ways data from the various methods studied can be used:

1. The data show relative demand for information on various topics and to this extent provide one of the bases for allocating publication resources.

2. The combination of methods offers a guide for deciding what publications to print and their content. For the latter, authors can refer to the cards on which the data are recorded to find out specifically what questions people want answered.

3. With a representative sample of the public, Methods 1 and 2 could be used to predict the number of copies of publications to print to meet existing demand. To this you would have to add an estimate of the additional demand created by promotion of the publication or special educational programs, if planned.

4. The data can be used as a guide for planning and developing educational programs, including information released through the various available media.

Here is a way that the data can be used by an author in determining what information to put into a publication. We'll assume that the method used for determining information needs showed sufficient need to warrant a publication on dairy feeding. To determine the content of the publication, the author would study the cards classified under dairy feeding from Methods 1 or 2. This would show him what questions people are asking.

The author would combine this information with new research findings and his own knowledge of the subject to determine the content of the publication.

We believe this would provide a better basis for determining the content of the publication than he now has.

OTHER SUGGESTIONS.--As frequently happens in a study of this type, we wish we could obtain more definitive data. Follow-up studies might help obtain such data. For example, use of Method 1 by several States will provide data that could be compared with data obtained in the 27 pilot counties to see how closely they correlate. States may also want to try to obtain data on questions people ask from persons other than county extension agents.

This might suggest that some States will want to obtain data from county extension agents, other agricultural agencies in the county, and such sources as feed, seed, fertilizer, and implement dealers. This would provide a more complete picture of the types of questions people ask. It would also be interesting to compare the questions people ask extension agents with the questions they ask the other sources mentioned during the same time period.

Suggestions for Using Method 1.

The following changes in procedure--based on experience of the committee--are suggested when using Method 1 to make the method easier to use and the data more valuable:

1. Get the help of the statistical specialist in drawing a representative sample. In this connection consider a plan whereby counties would rotate, year by year, in collecting data.

2. Continue the uniform system of reporting questions. Add place of residence to each question recorded. Develop some means of identifying questions that are part of a series--e.g., someone may ask a question on spraying roses and follow it with specific questions on what insecticide to use, how to mix it, and when to apply it. These are all related to the main question on spraying roses. It would be helpful in handling data to know that one person asked these related questions. The intent of this recommendation is to avoid getting a distorted picture of the number of requests on a topic and to show the pattern of questions that people ask on a topic. Consider the use of triplicate cards for each question and have counties mail one set direct to USDA. This would avoid recopying cards at the State office and the resulting delays.

3. Prepare quarterly summaries that would be reported on a uniform summary sheet.

4. Establish publications needs work as a service operation where authors, editors, and administrators may call for answers to specific questions.

5. Put data on data-processing cards and announce procedures that people in USDA, State and county offices may use to get information to answer specific operational questions. Examples of operational questions might be: What is the relative demand for information on canning and home freezing of foods? What kinds of questions did people ask about lawn care during the first 6 months of this year? During what month were most of these lawn questions asked? How did this compare with the number of lawn questions asked last year? What questions are being asked that suggest news stories and broadcasts and the time the public needs the information?

6. Consider the advisability of a county keeping records for one sample day a week rather than for one week in four. This might (a) give the county, State, and Federal offices a record that would more accurately account for seasonal variations and (b) distribute more uniformly throughout the year the additional county work involved in keeping the records.

Finally, while the sample used in this study is not claimed to be representative of the country, the data obtained on information needs of people may provide guides to those attempting to decide what publications to print and their content.

CHAPTER I

METHOD 1: QUESTIONS THAT PEOPLE ASK COUNTY EXTENSION AGENTS

A primary consideration in choosing methods to use in determining publications needs is to learn what information the public asks for. We can go directly to the people and ask them what they want to know; or we can collect samples of questions they ask professional agricultural and home economics workers.

The committee decided to collect questions people ask county extension agents. There were three main reasons for this decision:

1. The mere fact that a person asks a question shows that he is concerned enough to seek help and wants information he can use.

2. Collecting samples of questions is a fairly easy method of obtaining data.

3. Field interviews are costly; they reflect only the informational needs that a person recognizes at the time the interview is made; and they must be made repeatedly to provide a year-round sampling of needs.

PROCEDURE

Five States helped test this method. Each State selected four or more counties to keep a record of all questions received from the public for 13 sample weeks during 1958. The counties alternated weeks so that at least one county in each State was keeping a record of questions every week of the year.

Agents and their secretaries recorded each question on a 3 x 5 card, as nearly as possible as the person had asked it. They also put the date of the question and the name of the county on each card. They sent all cards to the State office which forwarded one set to USDA.

The counties classified the questions under 16 main categories. The States classified the questions in more detail, following the classification scheme shown in table 6 of this report. The Federal Extension Service coordinated the field work in the five States; and the Office of Information compiled and summarized the data.

States and counties participating in this study were:

Massachusetts - Barnstable County, Berkshire County, Bristol County, Franklin County, Hampden County, Hampshire County, Middlesex County, Plymouth County, Worcester County, and Waltham Field Station

Michigan - Arenac County, Berrien County, Gratiot County, and Macomb County

Mississippi - Coahoma County, Kemper County, Lincoln County, and Monroe County

Oklahoma - Cleveland County, Johnson County, Muskogee County, Tillman County, and Woodward County

Washington - Franklin County, Garfield County, King County, Okanogan County, and Whatcom County

The States are located in different geographic regions and the counties were selected to represent both rural and urban areas. However, it is not claimed that the counties are representative of the USA. The present data cannot be used as a national index of subject matter needs. We must continually re-emphasize that the main objective of the present work is a comparison of the six methods.

SUMMARY OF DATA

1. Nearly 3/5 of the questions were about agricultural topics; nearly 1/4 were about home economics; and nearly 1/5 were about community development, public affairs and miscellany.

2. Nearly 1/4 of the questions were about crops; 1/3 when related questions on insects, diseases and weeds are included.

    a. Nearly 3/5 of the crops questions were about horticultural crops--flowers, ornamentals, vegetables, fruits, and nuts.

    b. Nearly 9/10 of the Massachusetts crops questions were about horticultural crops.

    c. The kind of crop questions asked most frequently are those concerned with pest control (insects, diseases, and weeds), lime and fertilizer, varieties, and seedbed preparation, in that order.

3. Production questions accounted for more than 90% of the crops questions and about 80% of the livestock questions; marketing accounted for 10 and 20%, respectively.

4. In the livestock category, selection and breeding questions were asked most frequently.

5. Half of the questions in the pest category were about insects; of the insect questions, 1/2 were about crop insects.

6. Most of the questions in the general marketing category were from Massachusetts and most of these were about roadside stands.

7. Seventy percent of the soil management questions were about soil testing and fertilizers.

8. More than 3/5 of the water management questions were about irrigation.

9. One-third of the forestry questions were about tree planting.

10. Nearly 3/5 of the wildlife questions were about constructing and managing ponds for fish.

11. More than 1/2 of the farm business planning and management questions were for information on income taxes and social security.

12. One-third of the questions in the farm buildings and mechanical equipment category were about mechanical equipment used outside farm buildings.

13. Foods and nutrition questions accounted for 1/10 of all questions or 2/5 of the home economics questions.

    a. More than 1/2 of the foods and nutrition questions were about food preservation-- mostly freezing and canning.

    b. More than 1/4 of the foods and nutrition questions were about food preparation.

14. Nearly 2/5 of the questions about houses, surroundings, furnishings, and equipment were about home furnishings. Half of the home furnishings questions were about selecting and buying home furnishings, with information on window accessories and rugs being most in demand.

15. Home laundering and stain removal accounted for 1/2 of the home management and family economics questions.

16. More than 1/2 of the clothing questions were on construction, mainly general construction; nearly 1/4 were on selecting and buying clothes.

17. More than 9/10 of the family life questions dealt with hospitality and recreation.

18. Three-fourths of the community development and public affairs questions were about improvement clubs, councils and committees, mainly 4-H clubs.

19. About 1 question in 25 could not be classified under the 20 pages of specific categories (about 750 headings) and were put in a miscellaneous section.

20. This report will show the relative number of requests for information on various topics in the pilot States. To appreciate fully the kind of information requested, you must read the questions asked.

USES AND LIMITATIONS OF DATA

Uses:

    Usefulness of the present data is limited by the number and location of the pilot States and counties. These counties may not represent the Nation, but the data can still provide some guides to planning publications and educational programs.

    When the data are based on a representative sample of the Nation (or a State), they may be used in the following ways:

    1. To help determine which publications are needed, breadth of need, content of those publications, depth of detail, and time of year the information is needed.

    2. To help select content for other mass media releases.

    3. To help staff members in program planning.

    4. To provide a guide to timing of information releases for best results, especially on problems that recur annually or seasonally.

    5. To provide data to help county agents report their activities (monthly and annual reports).

Here are some examples of ways to use the data. Since crops accounted for about 1/4 of all questions, crops have a high priority in terms of information sought. The term "crops" in this report covers all plants and consequently a wide-range of interest. What kind of crops were asked about most often? We find it was fruits and nuts. A look at the cards will tell us which kind of fruits and nuts and the kind of questions asked. (Additional categories can be developed here as needed.) From these data we can better determine the content of the publication.

Another approach is to note that 1/8 of all crop questions were about varieties. It appears that preparing charts or a series of leaflets showing recommended varieties of crops for given areas might answer about 1/8 of the crop questions. Since variety recommendations vary from State to State, these might logically be State publications.

Among foods and nutrition questions, more than 1/2 were about food preservation. A look at the questions would help authors decide what content they should provide through publications to answer those questions.

The similarity and number of questions on a subject may help determine whether to treat information in one publication or in a series of publications. The publications needs data will not provide ready-made answers to publications titles, but will furnish facts to help those who make the decisions.

The following are some examples of uses of the data:

Agricultural Research Service, Publications Branch, has used the cards to check content of some publications they have edited.

The editorial section of the Office of Information, Publications Division, has used the cards to check content of some publications being revised.

The USDA yearbook staff copied the foods and nutrition questions as a basis for a question and answer section in the 1959 yearbook on foods and nutrition.

An agronomist felt that the number of questions on cotton planting suggests a need for a publication on the use of soil temperature as a guide to planting.

The Michigan extension publications editor reported using the cards to stimulate specialists to prepare needed corn publications. Michigan also compared questions asked with publications available to see how well the publications answered the questions.

The Massachusetts extension editor reports using the questions in planning media coverage at the State level; counties are using the questions in programming subject matter. He intends to use the information in publications planning conferences.

The Oklahoma publications editor intends to use the county agent questions as a guide in his annual publications planning conference. Copies of the tabulated questions have been thermofaxed and sent to the extension specialists.

Home management specialists in Washington State reported they had such a high percentage of questions on stain removal that they set up a special information program on this subject for 1959.

Mississippi is developing plans to use the data in Extension program planning.

The FES Agricultural Programs Division requested data on percentage of insect, disease, and weed questions in planning for a meeting with ARS pest control researchers.

Limitations:

Two kinds of limitations must be considered in using these data--people and content.

The people asking questions of county agents may not represent the total public. If this method is used alone it would be well to sample questions the public asks other government field offices, dealers, and salesmen. This will provide a check of how well the county agents' clientele represents the public.

The content suggested by questions the public asks covers only information that concerns people enough to cause them to ask for help. It does not cover new research about which people haven't heard; it does not include information designed to make people aware of needs they haven't recognized; and it does not cover use of government programs determined by law. Absence of questions on a given topic may indirectly show a lack of awareness of needs.

ANALYSIS OF DATA

Of the 38,206 questions received and recorded by county agents in the sample counties during 1958, nearly 1/4 were about crops (all plants). The crops category led the list in all States, although the percentage varied from State to State. Table 1 shows the percentage of questions in each of 14 main categories.

The kinds of questions asked under each of the main categories will be discussed on the following pages. However, it is necessary to look at the card file of questions to get an appreciation of what people ask about the various topics.

TABLE 1.--RELATIVE NEED FOR INFORMATION BASED ON NUMBER OF QUESTIONS PEOPLE ASKED COUNTY EXTENSION AGENTS IN PILOT COUNTIES IN FIVE STATES

Main topic categories	Mass.		Mich.		Miss.		Okla.		Wash.		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Crops......................	1,582	20.1	1,384	30.2	2,223	24.4	2,076	22.8	1,622	21.6	8,887	23.1
Insects, diseases, weeds, etc.....................	1,414	18.0	1,060	23.1	986	10.8	1,191	13.1	1,067	14.2	5,718	14.9
Community development, and public affairs...........	854	10.8	185	4.0	1,399	15.4	1,884	20.7	1,056	14.0	5,378	14.0
Foods and nutrition........	1,042	13.2	206	4.5	1,104	12.1	527	5.8	1,041	13.8	3,920	10.2
Livestock..................	309	3.9	344	7.5	900	9.9	721	7.9	790	10.5	3,064	8.0
House and surroundings, furnishings and equipment....	821	10.4	246	5.4	701	7.7	495	5.4	487	6.5	2,750	7.2
Soil and water management, forestry, and wildlife....	586	7.4	548	11.9	407	4.5	665	7.3	507	6.7	2,713	7.1
Miscellaneous..............	200	2.5	75	1.6	363	4.0	557	6.1	242	3.2	1,437	3.7
Clothing...................	266	3.4	121	2.6	373	4.1	435	4.8	212	2.8	1,407	3.7
Farm buildings and mechanical equipment............	254	3.2	158	3.4	146	1.6	246	2.7	177	2.4	981	2.6
Planning and management of the farm business........	129	1.6	151	3.3	196	2.2	209	2.3	160	2.1	845	2.2
Health, family life and safety....................	202	2.6	35	.8	223	2.5	94	1.0	60	.8	614	1.6
Home management and family economics................	135	1.7	48	1.0	82	.9	29	.3	96	1.3	390	1.0
Marketing organizations.....	70	.9	12	.3	9	.1	3	.03	7	.1	101	.3
TOTAL..................	7,864	99.7	4,573	99.6	9,112	100.2	9,132	100.2	7,525	100.0	38,206	99.6

In studying the data, you will note that not all categories used in the classification schedule are exclusive. For example, some of the insect, disease, and weed questions listed in Category V are related to crops, some concern livestock, etc. But no question was listed twice. Also, you will find a main category for marketing in addition to marketing sub-heads under crop and livestock headings.

Some of the analyses were made so that all crop questions are combined, including those in the soils category and those in the insect, disease and weed category. It was assumed that this combining process would help the user of this report interpret the data.

Agriculture

Agricultural topics accounted for nearly 3/5 (58.5%) of all questions. The seven main agricultural topics rank in order as follows: (1) crops; (2) insects, diseases, parasites, rodents and weeds; (3) livestock; (4) soil and water conservation and management, forestry and wildlife; (5) farm buildings and mechanical equipment; (6) planning and management of the farm business; and (7) marketing, distribution and farm and home service organizations.

Crop Questions--(23.1% of all questions for the 5 States)

Several crop-related questions are recorded under Categories V and VII of the classification schedule (pp. 26 and 30). In table 2 these related questions are added to the crops questions to give a more complete picture of the kinds of questions asked about crops. Adding the related questions increased the proportion of crops questions to 1/3 of all questions.

TABLE 2.--KINDS OF CROP QUESTIONS ASKED IN PILOT COUNTIES

Kind of crop question	Mass.		Mich.		Miss.		Okla.		Wash.		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Production --												
Other production questions	771	32.2	396	16.8	490	17.3	407	13.1	516	21.4	2,580	19.6
Use of lime and fertilizer[1]	337	14.1	541	22.9	280	9.9	673	21.6	304	12.6	2,135	16.2
Insect questions[2].........	207	8.7	320	13.5	352	12.4	388	12.5	283	11.7	1,550	11.8
Selection and use of improved varieties and strains...............	106	4.4	271	11.5	377	13.3	448	14.4	346	14.4	1,548	11.8
Seedbed preparation and planting...............	164	6.9	166	7.0	419	14.8	455	14.6	176	7.3	1,380	10.5
Plant diseases[3]..........	213	8.9	266	11.3	46	1.6	247	7.9	154	6.4	926	7.0
Weed questions[3]..........	245	10.2	197	8.3	107	3.8	157	5.0	203	8.4	909	6.9
Harvesting, storing, and curing...............	133	5.6	72	3.0	257	9.1	150	4.8	133	5.5	745	5.7
Efficient work methods....	106	4.4	24	1.0	53	1.9	29	.9	78	3.2	290	2.2
Marketing --												
Commodity outlook........	47	2.0	78	3.3	248	8.8	105	3.4	182	7.6	660	5.0
Other marketing questions.	64	2.7	31	1.3	202	7.1	52	1.7	35	1.5	384	2.9
TOTAL..................	2,393	100.1	2,362	99.9	2,831	100.1	3,111	99.9	2,410	100.0	13,107	99.6

[1] Includes lime, fertilizer, and soil testing questions from Classification Category VII, p. 30.
[2] Includes forest and shade trees, but not insecticides and equipment from Classification Category V, p. 26.
[3] From Classification Category V, p. 26.

The total number of crops questions in table 2 is larger than in tables 1 and 3. That is due to the addition of crop-related pest and fertility questions from categories V and VII.

Of the crop questions, 92.1% were production questions and 7.9% were marketing questions. Mississippi had the highest percentage of marketing questions (15.9%) and Michigan had the lowest percentage (4.6%).

The ratio of marketing to production questions poses some interesting questions. Do the data actually reflect the ratio of marketing to production questions bothering people? Do the data reflect the image people have of the kind of questions that the county agent is best fitted to answer? Or are there other explanations?

A larger percentage of crops questions (19.6%) did not fit any of the specific sub-categories and were put under "other" production questions. These "other" questions often were general in nature and covered a variety of problems. The "other" classification ranked first in number of questions, followed by lime and fertilizer, varieties, insects, and seedbed preparation.

If the weed, insect and disease questions are combined, they account for about 1/4 of the crop questions, or about 1/11 of all questions. This combination of pest questions would then become the top ranking classification.

Most of the marketing questions were about outlook information, except in Massachusetts, where other kinds of marketing questions predominated.

See table 2 for more details about the kind of information people wanted about crops.

In table 3 you will find a breakdown of the crops questions by kind of crop. Note that fruits and nuts led the list for all States except Oklahoma where nearly 1/3 of the crop questions were about cotton.

Note that nearly 2/3 of the Massachusetts crops questions were about flowers, ornamentals, and vegetables. And nearly 9/10 were about flowers, ornamentals, vegetables, fruits, and nuts. For the five States these figures would be nearly 3/10 and nearly 3/5, respectively. Thus we can see the extent to which horticultural questions predominate in an urban State such as Massachusetts. In table 3 we can check the proportion of horticultural questions in the less urbanized States.

Besides horticultural questions shown in table 3, there are 896 landscaping and lawn questions in Classification Category X, "House and Surroundings... ," p. 32. More than half of these were from Massachusetts.

TABLE 3.--NUMBER AND PERCENTAGE OF CROP QUESTIONS ASKED ABOUT EACH CROP

Crop	Mass. No.	Mass. %	Mich. No.	Mich. %	Miss. No.	Miss. %	Okla. No.	Okla. %	Wash. No.	Wash. %	Total No.	Total %
Fruits and nuts..............	399	25.2	453	32.7	661	29.7	305	14.7	692	42.6	2,510	28.4
Flowers and ornamentals......	621	39.2	91	6.6	398	17.9	170	8.2	153	9.4	1,433	16.1
Vegetables...................	391	24.7	116	8.4	286	12.9	112	5.4	270	16.6	1,175	13.3
Hay and forages..............	70	4.4	119	8.6	240	10.8	323	15.6	208	12.8	960	10.8
Cotton.......................	0	.0	0	.0	246	11.1	650	31.3	0	.0	896	10.1
Corn.........................	18	1.1	171	12.3	143	6.4	18	.9	38	2.3	388	4.4
Wheat........................	2	.1	141	10.2	19	.9	121	5.8	93	5.7	376	4.2
Other grain crops and general grain..............	0	.0	102	7.4	57	2.6	118	5.7	49	3.0	326	3.7
Crops in general.............	74	4.7	38	2.7	21	.9	39	1.9	57	3.5	229	2.6
Popcorn......................	0	.0	0	.0	23	1.0	165	8.0	1	.1	189	2.1
Oats.........................	2	.1	38	2.7	61	2.7	22	1.1	22	1.4	145	1.6
Oil and sugar crops..........	0	.0	38	2.7	68	3.1	6	.3	4	.2	116	1.3
Barley.......................	0	.0	54	3.9	0	.0	17	.8	20	1.2	91	1.0
Rye..........................	0	.0	23	1.7	0	.0	10	.5	14	.9	47	.5
Tobacco......................	5	.3	0	.0	0	.0	0	.0	0	.0	5	.1
Other fiber crops...........	0	.0	0	.0	0	.0	0	.0	1	.1	1	.01
TOTAL....................	1,582	99.8	1,384	99.9	2,223	100.0	2,076	100.2	1,622	99.8	8,887	100.2

Livestock Questions--(8.0% of all questions for the 5 States)

Among the five classes of livestock, the highest percentage of the questions concerned poultry. A breakdown by classes is shown in table 4.

Mississippi, formerly a crop State, turned in more livestock questions than any of the other four States. Washington and Oklahoma ranked second and third in number of livestock questions reported.

In table 5 below, you will note that 1/5 (20.7%) of the livestock questions concerned marketing and 4/5 (79.3%) were production questions.

Selection and breeding questions ranked first among the production questions, accounting for nearly 1/5 (19.2%) of all livestock questions. The next highest number of requests was under "other" production questions (17.8%) followed by feeding (14.9%) and outlook information (14.0%).

TABLE 4.--NUMBER AND PERCENTAGE OF LIVESTOCK QUESTIONS ASKED ABOUT EACH CLASS OF LIVESTOCK

Class of livestock	Mass.		Mich.		Miss.		Okla.		Wash.		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Poultry.....................	105	34.0	34	9.9	240	26.7	92	12.8	272	34.4	743	24.2
Swine......................	9	2.9	74	21.5	195	21.7	217	30.1	57	7.2	552	18.0
Beef.......................	21	6.8	71	20.6	126	14.0	202	28.0	100	12.7	520	17.0
Dairy......................	90	29.1	65	18.9	120	13.3	74	10.3	140	17.7	489	15.9
Sheep and goats............	40	12.9	53	15.4	158	17.6	79	11.0	83	10.5	413	13.5
Other and general livestock.	44	14.2	47	13.7	61	6.8	57	7.9	138	17.5	347	11.3
TOTAL...................	309	99.9	344	100.0	900	100.1	721	100.1	790	100.0	3,064	99.9

TABLE 5.--KINDS OF LIVESTOCK QUESTIONS ASKED IN PILOT COUNTIES

Kind of livestock question	Mass.		Mich.		Miss.		Okla.		Wash.		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Production --												
Selection and breeding....	38	10.9	62	14.5	251	23.1	220	26.4	120	13.4	691	19.2
Other production questions	94	27.0	45	10.5	139	12.8	151	18.1	212	23.7	641	17.8
Feeding....................	44	12.6	101	23.6	138	12.7	132	15.8	121	13.5	536	14.9
Labor, housing, and management.................	63	18.1	49	11.5	107	9.8	87	10.4	76	8.5	382	10.6
Diseases[1].................	28	8.0	23	5.4	104	9.6	74	8.9	62	6.9	291	8.1
Insects[1].................	11	3.2	60	14.0	83	7.6	39	4.7	44	4.9	237	6.6
Efficient work methods....	9	2.6	9	2.1	20	1.8	7	.8	23	2.6	68	1.9
Marketing --												
Commodity outlook.........	36	10.3	56	13.1	151	13.9	56	6.7	206	23.0	505	14.0
Preparation for market....	20	5.7	14	3.3	42	3.9	32	3.8	18	2.0	126	3.5
Arranging to sell and selling.................	3	0.9	8	1.9	32	2.9	29	3.5	10	1.1	82	2.3
Other marketing questions.	2	0.6	0	.0	20	1.8	7	.8	4	.4	33	.9
TOTAL.................	348	99.9	427	99.9	1,087	99.9	834	99.9	896	100.0	3,592	99.8

[1] From Classification Category V, p. 26.

Adding the disease and insect questions in table 5 makes the total number of livestock questions larger in table 5 then in table 4.

Insects, Diseases and Parasites of Plants and Animals, Nematodes, Weeds, Rodents and Noxious Wildlife--(14.9% of all questions for the 5 States)

More than half (54.2%) of the questions in this category were about insects, and nearly half of these were about crop insects. More than 1/7 (15.1%) of the insect questions were about insects affecting man and households; 1/12 (7.4%) were on insects affecting animals; and 1/16 (6.3%) were about insecticides and insect control equipment. The other insect questions covered insect identification, general insect problems and beneficial insects.

For further information on insects, diseases, weeds, etc. see pages 26 through 30 of table 6.

Marketing, Distribution and Farm and Home Service Organizations--(0.3% of all questions for the 5 States)

Only 101 of the 38,206 questions belonged in this category. Of these, 70 were from Massachusetts; and of the 70 Massachusetts questions, 41 asked for information about building or improving roadside stands.

Among the Michigan questions in this category were the following: How do you report unlabeled and adulterated sausage? What will be the trends in handling feed? How will brokers react to the pricing plan at the Benton Harbor Market? How much does it cost to start a small doughnut shop locally? How do you register a trademark?

Soil and Water Conservation and Management, Forestry and Wildlife--(7.1% of all questions for the 5 States)

More than 2/5 (43.7%) of the questions in this category related to soil management, and most of these (70.4%) were about soil testing and fertilizers.

Water management accounted for nearly 1/5 (18.5%) of the questions, and more than 3/5 (62.9%) of these were about irrigation.

Forestry questions accounted for more than 1/4 (28.5%) of the questions and 2% of all questions. Nearly 1/3 (32.0%) of the forestry questions were about tree planting.

Questions on wildlife amounted to 1/12 (8.4%) of all questions in this category and 0.6% of all questions received. Nearly 3/5 (58.1%) of the wildlife questions wanted information about constructing and managing ponds for fish.

Planning and Management of the Farm Business--(2.2% of all questions for the 5 States)

More than 1/2 (51.8%) of the questions in this category asked for information about income taxes and social security. The next most popular topic was keeping and analyzing farm records; it accounted for 1/10 of the farm business planning and management questions.

Farm Buildings and Mechanical Equipment--(2.6% of all questions for the 5 States)

One-third (33.8%) of the questions in this category were about mechanical equipment used outside farm buildings. See page 32 for kinds of questions asked.

Building construction accounted for more than 1/4 (28.2%) of the questions; and selecting and constructing farm building equipment accounted for nearly 1/5 (19.5%) of the questions in the building and equipment category.

Home Economics

Questions in the five home economics categories (X to XIV, incl.) totaled 9,081, or nearly 1/4 (23.8%) of all questions asked. That figure does not include 493 questions about insects affecting man and households.

Of the home economics questions, more than 2/5 (43.2%) concerned foods and nutrition; nearly 1/3 (30.3%) asked about house and surroundings, furnishings and equipment; more than 1/7 (15.5%) were on clothing; and 1/8 were divided among home management, family economics, health, family life and safety.

Foods and Nutrition--(10.2% of all questions for the 5 States)

More than 1/2 (52.9%) of the foods questions inquired about food preservation; and more than 1/4 (27.9%) were about food preparation. Meal planning, selecting and buying foods, and improving diets together accounted for about 1/8 of the foods questions.

As for the 2,074 food preservation questions, freezing questions were asked most frequently (860 questions) followed by canning (621 questions). Under food preparation, most of the questions were about meats and desserts.

House and Surroundings, Furnishings and Equipment--(7.2% of all questions for the 5 States)

Nearly 2/5 (38.8%) of the questions in this category were about home furnishings; nearly 1/3 (32.6%) related to lawns and home ground beautification; more than 1/6 (17.4%) about building and remodeling houses; and 1/9 (11.2%) about home equipment, excluding sewing equipment.

Of the 1,067 home furnishings questions, 556 (more than 1/2 were about selection, use and care, with information on window accessories and rugs most in demand. (See p. 32 for listing)

Clothing--(3.7% of all questions for the 5 States)

More than 1/2 (51.8%) of the clothing questions were about construction, mainly general construction. Nearly 1/4 (23.0%) were about selecting and buying clothes; and 1/7 (13.9%) were about sewing equipment. Nearly 1 construction question in 8 asked about pattern alteration.

Home Management and Family Economics--(1.0% of all questions for the 5 States)

Home laundering and stain removal accounted for 1/2 (49.7%) of the questions in this category, followed by family financial planning (16.4%), and improving housekeeping methods (14.9%).

Health, Family Life and Safety--(1.6% of all questions for the 5 States)

More than 4/5 (83.2%) of the questions in this category were about family life, of which more than 9/10 (91.8%) dealt with hospitality and recreation. One-eighth (12.9%) of the questions in this category were about health and 3.9% were about safety.

Community Development, Public Affairs and Miscellaneous

Community Development and Public Affairs--(14.0% of all questions for the 5 States)

Three-fourths (76.0%) of these questions were about improvement clubs, councils and committees, with more than 3/5 (62.6%) of these about 4-H clubs. More than 1/7 (15.3%) of the questions were about government programs; and 5.9% were about community problems such as schools, health facilities, and churches. There were only 24 questions on world affairs and 124 on regional or area development work.

Miscellaneous--(3.7% of all questions for the 5 States)

Nearly one question in 25 could not be classified under the 20 pages of specific categories and was put in the miscellaneous section.

A detailed classification of the 38,206 questions received from the sample of counties in 5 States during 1958 is shown on pp. 20 through 36.

SOME OBSERVATIONS AND RECOMMENDATIONS

The observations and recommendations given below assume the use of a sample of counties which would be representative of the Nation and the States involved. As pointed out earlier, the sample of States used in this pilot study is not claimed to represent the entire Nation.

A tabulation of all the questions on the classification schedule plus a summary by subject areas and types of questions will show kinds of information most often requested from county agents. It will require some judgment to determine which of the topics most in demand can best be handled on a State basis, which on a Regional basis, and which on a Federal basis. Persons familiar with the subject matter and publications use should be able to make such judgments.

Innumerable combinations and comparisons of the data may be made. However, from a practical standpoint, it seems advisable to do a minimum of analyzing and summarizing until we know what detailed information is needed.

From this report and classification of questions, one may determine the topics on which most requests are received and use that information to help decide what publications are most needed. Then the author may read the specific questions on cards relating to his subject as a guide to the content of the publication. Specific wording of questions, and the kinds of questions people ask are both revealing. Further analyses and summaries of the data may be made at that time to help the author further determine his manuscript content.

The author will not rely entirely on the questions for content of the publication. He will use that information plus new research findings and his own knowledge of the field to determine content. The combination will give him a better basis than he now has for deciding what to include in the publication.

The classification form needs minor revisions if the work is continued.

If this plan is adopted, it may be advisable to put the data on IBM cards for greater usefulness and to save time in getting summaries. With IBM cards, more extensive breakdowns and combinations could be handled with a minimum of additional effort.

Here are some recommended procedures for this method of determining publications needs:

1. Get the help of statistical specialists in drawing representative National and State samples. In this connection, consider a plan where counties would rotate on a year-to-year basis in the sample.

2. Continue the uniform system of reporting questions. Add place of residence to data collected with each question to identify farm and non-farm sources of questions. Develop some means of identifying questions that are part of a series. e.g. Someone may ask a question on spraying roses and follow with specific questions on what insecticide, how to mix it, and when to apply it. These are all related to the main question on spraying roses. It would be helpful in handling data to know that one person asked these related questions. The intent of this recommendation is to avoid getting a distorted picture of the number of requests on a topic; and to show the pattern of questions that people ask on a topic. Consider the use of triplicate cards for each question and have counties mail one set direct to USDA. This would avoid recopying cards at the State office and the delays resulting from tabulating or copying cards at the State office.

3. Prepare quarterly summaries that would be reported on a uniform tab and summary sheet.

4. Establish publications needs work as a service operation where authors, editors, and administrators may call for answers to specific questions.

5. Put data on IBM and announce procedures that people in USDA, State and county offices may use to get information to answer specific operational questions. Examples of operational questions might be: What is the relative demand for information on canning and home freezing of foods? What kinds of questions did people ask about lawn care during the first six months of this year? During what month were most of these lawn questions asked? How did this compare with the number of lawn questions asked last year? What questions are being asked that suggest press releases or broadcasts are needed?

6. Consider the advisability of a county keeping records for one sample day a week rather than for one week in four. This might: (1) give the county, State and Federal offices a record that would more accurately account for seasonal variations; and (2) distribute more uniformly throughout the year the additional county work involved in keeping the records.

7. Keep computation of data to a minimum; voluminous reports of data tend to discourage use.

TABLE 6.--DETAILED TABULATION OF QUESTIONS

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
I. GRAIN CROPS...........................	22	529	280	306	236	1,373
A. Wheat................................	2	141	19	121	93	376
1. Production...........................	2	141	15	105	86	349
a. Seedbed preparation and planting...	2	22	3	7	15	49
b. Selection and use of improved varieties and strains............		28	.2	8	43	81
c. Use of fertilizers and lime........		85	5	53	17	160
d. Harvesting, storing and curing.....		3		10	4	17
e. Efficient work methods.............						
f. Other questions....................		3	5	27	7	42
2. Farm marketing......................			4	16	7	27
a. Preparation for market.............				3		3
b. Commodity outlook and market information......................			4	13	6	23
c. Arranging to sell and selling......					1	1
d. Other questions....................						
B. Corn.................................	18	171	143	18	38	388
1. Production...........................	14	166	114	17	34	345
a. Seedbed preparation and planting...	1	19	21	2	5	48
b. Selection and use of improved varieties and strains............	1	67	43	7	9	127
c. Use of fertilizers and lime........	6	52	14		9	81
d. Harvesting, storing and curing.....	3	21	17	2	4	47
e. Efficient work methods.............			4		1	5
f. Other questions....................	3	7	15	6	6	37
2. Farm marketing......................	4	5	29	1	4	43
a. Preparation for market.............						
b. Commodity outlook and market information......................	4	5	16		4	29
c. Arranging to sell and selling......			13	1		14
d. Other questions....................						
C. Oats.................................	2	38	61	22	22	145
1. Production...........................	2	37	45	21	18	123
a. Seedbed preparation and planting...	1	1	19	7	4	32
b. Selection and use of improved varieties and strains............		26	5	6	9	46
c. Use of fertilizers and lime........		2	15	2	2	21
d. Harvesting, storing and curing.....		3	4	4	3	14
e. Efficient work methods.............						
f. Other questions....................	1	5	2	2		10
2. Farm marketing......................		1	16	1	4	22
a. Preparation for market.............			2			2
b. Commodity outlook and market information......................		1	10	1	4	16
c. Arranging to sell and selling......			3			3
d. Other questions....................			1			1
D. Barley...............................		54		17	20	91
1. Production...........................		43		16	20	79
a. Seedbed preparation and planting...		20		6	4	30
b. Selection and use of improved varieties and strains............		18		7	13	38
c. Use of fertilizers and lime........		5		1		6
d. Harvesting, storing and curing.....						
e. Efficient work methods.............						
f. Other questions....................				2	3	5

TABLE 6.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
2. Farm marketing......................		11		1		12
a. Preparation for market.............						
b. Commodity outlook and market						
information......................		10		1		11
c. Arranging to sell and selling......		1				1
d. Other questions...................						
E. Rye..................................		23		10	14	47
1. Production...........................		23		9	14	46
a. Seedbed preparation and planting...		10			2	12
b. Selection and use of improved						
varieties and strains.............				9	6	15
c. Use of fertilizers and lime........		6				6
d. Harvesting, storing and curing.....		3			2	5
e. Efficient work methods.............						
f. Other questions...................		4			4	8
2. Farm marketing......................				1		1
a. Preparation for market.............						
b. Commodity outlook and market						
information......................						
c. Arranging to sell and selling......				1		1
d. Other questions...................						
F. Other Grain (rice, dry peas, beans,						
etc.)..............................		97	47	104	43	291
1. Production...........................		76	39	101	42	258
a. Seedbed preparation and planting...		12	17	15	8	52
b. Selection and use of improved						
varieties and strains............		17	7	67	7	98
c. Use of fertilizers and lime........		38	2	5	6	51
d. Harvesting, storing and curing.....		2	11	2	5	20
e. Efficient work methods.............						
f. Other questions...................		7	2	12	16	37
2. Farm marketing......................		21	8	3	1	33
a. Preparation for market.............						
b. Commodity outlook and market						
information......................		21	8	3		32
c. Arranging to sell and selling......					1	1
d. Other questions...................						
G. Grain Crops in General..............		5	10	14	6	35
1. Production...........................		5	6	14	6	31
a. Seedbed preparation and planting...		1	2	3		6
b. Selection and use of improved						
varieties and strains............						
c. Use of fertilizers and lime........		2	1	6	1	10
d. Harvesting, storing and curing.....		1	3	2	4	10
e. Efficient work methods.............						
f. Other questions...................		1		3	1	5
2. Farm marketing......................			4			4
a. Preparation for market.............						
b. Commodity outlook and market						
information......................			4			4
c. Arranging to sell and selling......						
d. Other questions...................						

TABLE 6.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
II. COTTON AND OTHER FIBER CROPS.........			246	650	1	897
A. Cotton................................			246	650		896
1. Production.........................'..			198	636		834
a. Seedbed preparation and planting...			30	222		252
b. Selection and use of improved varieties and strains............			17	120		137
c. Use of fertilizers and lime........			31	205		236
d. Harvesting, storing and curing.....			87	81		168
e. Efficient work methods.............			2			2
f. Other questions....................			31	8		39
2. Farm marketing......................			48	14		62
a. Preparation for market.............			9	7		16
b. Commodity outlook and market information........................			36	7		43
c. Arranging to sell and selling......			3			3
d. Other questions....................						
B. Other Fiber Crops.....................					1	1
1. Production.........................					1	1
a. Seedbed preparation and planting...						
b. Selection and use of improved varieties and strains............						
c. Use of fertilizers and lime........						
d. Harvesting, storing and curing.....						
e. Efficient work methods.............						
f. Other questions....................					1	1
2. Farm marketing......................						
a. Preparation for market.............						
b. Commodity outlook and market information........................						
c. Arranging to sell and selling......						
d. Other questions....................						
III. OTHER CROPS.........................	1,560	855	1,697	1,120	1,385	6,617
A. Hay and Other Forage, Pasture, Range.	70	119	240	323	208	960
1. Production.........................	64	101	226	277	182	850
a. Seedbed preparation and planting...	12	26	55	78	33	204
b. Selection and use of improved varieties and strains............	14	36	83	91	70	294
c. Use of fertilizers and lime........	14	12	29	43	30	128
d. Harvesting, storing and curing.....	14	15	30	24	27	110
e. Efficient work methods.............	1		5			6
f. Other questions....................	9	12	24	41	22	108
2. Farm marketing......................	6	18	14	46	26	110
a. Preparation for market.............	1	1		13	1	16
b. Commodity outlook and market information........................	3	9	8	20	23	63
c. Arranging to sell and selling......	2	7	6	13	1	29
d. Other questions....................		1			1	2
B. Tobacco...............................	5					5
1. Production.........................	4					4
a. Seedbed preparation and planting...						
b. Selection and use of improved varieties and strains............						
c. Use of fertilizers and lime........	1					1
d. Harvesting, storing and curing.....	1					1

TABLE 6.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
e. Efficient work methods.............						
f. Other questions...................	2					2
2. Farm marketing.....................	1					1
a. Preparation for market.............						
b. Commodity outlook and market information......................	1					1
c. Arranging to sell and selling......						
d. Other questions...................						
C. Oil and Sugar Crops.................		38	68	6	4	116
1. Production.........................		37	55	6	4	102
a. Seedbed preparation and planting...		1	14			15
b. Selection and use of improved varieties and strains...........		16	6	2		24
c. Use of fertilizers and lime.......		13	2			15
d. Harvesting, storing and curing.....		1	28			29
e. Efficient work methods.............						
f. Other questions...................		6	5	4	4	19
2. Farm marketing.....................		1	13			14
a. Preparation for market.............			2			2
b. Commodity outlook and market information......................		1	5			6
c. Arranging to sell and selling......			6			6
d. Other questions...................						
D. Fruits and Nuts.....................	399	453	661	305	692	2,510
1. Production.........................	368	424	408	294	609	2,103
a. Seedbed preparation and planting...	26	21	77	32	47	203
b. Selection and use of improved varieties and strains...........	39	46	104	76	153	418
c. Use of fertilizers and lime.......	46	90	36	26	67	265
d. Harvesting, storing and curing.....	28	5	17	9	37	96
e. Efficient work methods.............	39	20	26	9	66	160
f. Other questions...................	190	242	148	142	239	961
2. Farm marketing.....................	31	29	253	11	83	407
a. Preparation for market.............	5	11	91	2	1	110
b. Commodity outlook and market information......................	12	15	120	5	74	226
c. Arranging to sell and selling......	11	1	42	4	6	64
d. Other questions...................	3	2			2	7
E. Vegetables, including Potatoes and Herbs...............................	391	116	286	112	270	1,175
1. Production.........................	364	107	244	106	208	1,029
a. Seedbed preparation and planting...	23	9	65	19	25	141
b. Selection and use of improved varieties and strains...........	19	10	83	39	26	177
c. Use of fertilizers and lime........	66	30	14	17	13	140
d. Harvesting, storing and curing.....	49	8	17	3	37	114
e. Efficient work methods.............		1	4	1		6
f. Other questions...................	207	49	61	27	107	451
2. Farm marketing.....................	27	9	42	6	62	146
a. Preparation for market.............	7	1	4		2	14
b. Commodity outlook and market information......................	11	7	25	3	50	96
c. Arranging to sell and selling......	9		11	3	7	30
d. Other questions...................		1	2		3	6

TABLE 6.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
F. Flowers, Ornamental Shrubs, and						
Shade Trees.........................	621	91	398	170	153	1,433
1. Production.............................	588	86	388	166	145	1,373
a. Seedbed preparation and planting...	95	14	101	27	23	260
b. Selection and use of improved						
varieties and strains............	25	6	25	7	8	71
c. Use of fertilizers and lime........	52	10	21	24	8	115
d. Harvesting, storing and curing.....	17	4	43	9	8	81
e. Efficient work methods.............	63	3	12	19	8	105
f. Other questions....................	336	49	186	80	90	741
2. Farm marketing.......................	33	5	10	4	8	60
a. Preparation for market.............	6				2	8
b. Commodity outlook and market						
information......................	11	1	3	1		16
c. Arranging to sell and selling......	13	3	7	3	4	30
d. Other questions....................	3	1			2	6
G. Popcorn.............................			23	165	1	189
1. Production.............................			17	117	1	135
a. Seedbed preparation and planting...			8	33		41
b. Selection and use of improved						
varieties and strains............						
c. Use of fertilizers and lime........			6	48		54
d. Harvesting, storing and curing.....						
e. Efficient work methods.............						
f. Other questions....................			3	36	1	40
2. Farm marketing.......................			6	48		54
a. Preparation for market.............						
b. Commodity outlook and market						
information......................			6	48		54
c. Arranging to sell and selling......						
d. Other questions....................						
H. Crops in General......................	74	38	21	39	57	229
1. Production.............................	65	29	18	34	35	181
a. Seedbed preparation and planting...	4	10	7	4	10	35
b. Selection and use of improved						
varieties and strains............	8	1	2	9	2	22
c. Use of fertilizers and lime........	6	1	1		3	11
d. Harvesting, storing and curing.....	21	6		4	2	33
e. Efficient work methods.............	3				3	6
f. Other questions....................	23	11	8	17	15	74
2. Farm marketing.......................	9	9	3	5	22	48
a. Preparation for market.............	4	1				5
b. Commodity outlook and market						
information......................	5	8	3	3	21	40
c. Arranging to sell and selling......						
d. Other questions....................				2	1	3
IV. LIVESTOCK.............................	309	344	900	721	790	3,064
A. Dairy Animals and Products...........	90	65	120	74	140	489
1. Production.............................	70	54	106	64	120	414
a. Selection and breeding.............	3	3	37	24	22	89
b. Feeding............................	14	20	35	13	33	115
c. Efficient work methods.............	4		8		6	18
d. Labor, housing and management......	20	17	13	7	18	75
e. Other questions....................	29	14	13	20	41	117

TABLE 6.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
2. Farm marketing......................	20	11	14	10	20	75
a. Preparation for market.............	4	7	1	4	5	21
b. Commodity outlook and market information......................	15	2	10	3	13	43
c. Arranging to sell and selling......		2	2	2	2	8
d. Other questions.....................	1		1	1		3
B. Poultry and Products.................	105	34	240	92	272	743
1. Production...........................	81	23	196	59	161	520
a. Selection and breeding.............	7		52	14	30	103
b. Feeding.............................	2	2	20	7	23	54
c. Efficient work methods.............			1		4	5
d. Labor, housing and management......	37	15	62	13	36	163
e. Other questions.....................	35	6	61	25	68	195
2. Farm marketing......................	24	11	44	33	111	223
a. Preparation for market.............	8		9	16	7	40
b. Commodity outlook and market information......................	15	11	32	8	99	165
c. Arranging to sell and selling......	1		1	8	3	13
d. Other questions.....................			2	1	2	5
C. Beef Cattle..........................	21	71	126	202	100	520
1. Production...........................	20	42	86	166	70	384
a. Selection and breeding.............	16	10	42	79	20	167
b. Feeding.............................	4	21	26	38	18	107
c. Efficient work methods.............		1	4	2	3	10
d. Labor, housing and management......		1	3	13	8	25
e. Other questions.....................		9	11	34	21	75
2. Farm marketing......................	1	29	40	36	30	136
a. Preparation for market.............		2	8	4	2	16
b. Commodity outlook and market information......................	1	23	26	23	27	100
c. Arranging to sell and selling......		4	6	8	1	19
d. Other questions.....................				1		1
D. Sheep, Goats and Products............	40	53	158	79	83	413
1. Production...........................	30	42	61	65	67	265
a. Selection and breeding.............	4	11	23	21	18	77
b. Feeding.............................	3	20	4	11	19	57
c. Efficient work methods.............	4	1	3	1	6	15
d. Labor, housing and management......	4	5	11	3	7	30
e. Other questions.....................	15	5	20	29	17	86
2. Farm marketing......................	10	11	97	14	16	148
a. Preparation for market.............	4	5	20	4		33
b. Commodity outlook and market information......................	4	5	38	5	13	65
c. Arranging to sell and selling......	2	1	22	5	3	33
d. Other questions.....................			17			17
E. Swine................................	9	74	195	217	57	552
1. Production...........................	7	65	161	200	35	468
a. Selection and breeding.............	2	27	88	75	12	204
b. Feeding.............................	3	21	34	49	11	118
c. Efficient work methods.............		4	4	4	1	13
d. Labor, housing and management......		8	18	49	3	78
e. Other questions.....................	2	5	17	23	8	55
2. Farm marketing......................	2	9	34	17	22	84
a. Preparation for market.............	2		3	1	3	9

TABLE 6.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
b. Commodity outlook and market information......................		9	30	11	19	69
c. Arranging to sell and selling......			1	4		5
d. Other questions....................				1		1
F. Other Livestock and Products.........	19	3	3	17	64	106
1. Production..........................	18	3	3	13	61	98
a. Selection and breeding.............	5	1		3	12	21
b. Feeding............................	3				2	5
c. Efficient work methods.............	1				1	2
d. Labor, housing and management......				1	3	4
e. Other questions....................	9	2	3	9	43	66
2. Farm marketing.....................	1			4	3	8
a. Preparation for market.............						
b. Commodity outlook and market information......................	1			4	2	7
c. Arranging to sell and selling......					1	1
d. Other questions....................						
G. Livestock in General.................	25	44	58	40	74	241
1. Production..........................	22	37	42	30	38	169
a. Selection and breeding.............	1	10	9	4	6	30
b. Feeding............................	15	17	19	14	15	80
c. Efficient work methods.............		3			2	5
d. Labor, housing and management......	2	3		1	1	7
e. Other questions....................	4	4	14	11	14	47
2. Farm marketing.....................	3	7	16	10	36	72
a. Preparation for market.............	2		1	3	1	7
b. Commodity outlook and market information......................		6	15	2	33	56
c. Arranging to sell and selling......		1		2		3
d. Other questions....................	1			3	2	6
V. INSECTS, DISEASES, AND PARASITES OF PLANTS AND ANIMALS, NEMATODES, WEEDS, RODENTS, AND NOXIOUS WILDLIFE.	1,414	1,060	986	1,191	1,067	5,718
A. Insects..............................	789	548	690	613	558	3,198
1. Beekeeping, apiculture..............	26	9	5	13	42	95
2. Beneficial insects.................	1	1		3	5	10
3. Insect identification and general insect problems...................	206	65	171	100	71	613
4. Insects affecting small grains[1].....	-/	1/	1/	47/ 5	-/	49/ 5
a. Wheat...............................		1		42		43
b. Oats................................			1			1
c. Barley..............................						
d. Rye.................................						
e. Rice...............................						
5. Insects affecting corn and sorghums.	15	8	59	18	5	105
6. Insects affecting forage crops......	2	1	1	25	5	34
a. Alfalfa.............................	1			18	1	20
b. Clovers.............................			1		1	2
c. Other legumes.......................						
d. Pasture, range and other forage plants............................	1		1	7	3	12

See footnotes at end of table.

TABLE 6.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
7. Insects affecting cotton and other fiber crops......................			116	111		227
8. Insects affecting tobacco..........	4					4
9. Insects affecting fruit crops[1].....	69/ 7	215/16	62/21	52/11	130/16	528/71
a. Stone fruits[1].....................	15/	76/	26/ 2	15/	43/ 1	175/ 3
(1) Peaches......................	8	35	23	11	10	87
(2) Cherries.....................	2	31			31	64
(3) Apricots.....................				2	1	3
(4) Plums.......................	5	10	1	2		18
(5) Other.......................						
b. Pome fruits......................	22	59	2	1	34	118
(1) Apples......................	19	55	2	1	29	106
(2) Pears.......................	3	4			5	12
(3) Other.......................						
c. Citrus fruits....................						
d. Berries[1].......................	21/	38/ 1	-/	-/	35/ 1	94/ 2
(1) Raspberries.................	1	19			10	30
(2) Blackberries................					1	1
(3) Strawberries................	13	17			17	47
(4) Other berries...............	7	1			6	14
e. Grapes..........................	4	26	1		2	33
f. Nut crops.......................			12	25		37
10. Insects affecting man.............	45	16	2		6	69
a. Mosquitoes, gnats................	4	12			2	18
b. Flies...........................	5	3				8
c. Fleas...........................	34				4	38
d. Lice............................	1					1
e. Ticks...........................	1		2			3
f. Chiggers........................						
g. Other...........................		1				1
11. Insects affecting households[1].....	212/	45/	42/ 1	36/	89/ 9	424/10
a. Roaches, ants, earwigs...........	79	8	28	20	10	145
b. Fabric pests....................	20	9		1	34	64
c. Pantry pests....................	7					7
d. Bedbugs.........................	1					1
e. Fleas...........................	6	3	3	2	9	23
f. Termites, other woodworking insects........................	64	16	4	6	16	106
g. Other...........................	35	9	6	7	11	68
12. Insects affecting animals[1]........	11/	60/ 1	83/ 6	39/ 3	44/ 1	237/11
a. Horses..........................			1		5	6
b. Cattle..........................	3	23	48	20	20	114
c. Sheep, goats....................	4	21	5		1	31
d. Swine...........................		13	3	13		29
e. Poultry.........................	2		19	2	8	31
f. Other...........................	2	2	1	1	9	15
13. Insects affecting truck and garden crops...................	54	63	85	39	85	326
a. General garden pests.............	16	8	25	15	25	89
b. Peas and beans....................		10	24	2	3	39
c. Cucumbers.......................	2	4		1		7
d. Potatoes........................	2		3	2	11	18
e. Sweetpotatoes...................			1			1

See footnotes at end of table.

TABLE 6.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
f. Tomatoes, peppers, eggplant........	7	21	12	1	23	64
g. Onions.............................	5	8				13
h. Cabbage and related plants.........	6	1	5	4	7	23
i. Sweet corn.........................		2		1		3
j. Other.............................	16	9	15	13	16	69
14. Insects affecting ornamental and nursery plants.....................	16	2	3	10	20	51
15. Insects affecting flower garden and greenhouse plants.............	26	23	9	7	27	92
16. Forest and shade tree insects......	21	7	5	77	8	118
17. Insects affecting stored grain.....			11	2	3	16
18. Insecticides and insect control equipment........................	81	32	35	34	18	200
B. Plant Diseases[1]......................	213/	266/	46/	247/	154/	926/ 2
1. Diseases of small grains[1]..........	1/	1/	-/	4/ 1	9/	15/ 1
a. Wheat.............................		1		3	8	12
b. Oats..............................						
c. Barley............................					1	1
d. Rye...............................	1					1
e. Rice..............................						
2. Diseases of corn and sorghums.......				1		1
3. Diseases of forage crops...........					1	1
a. Alfalfa...........................						
b. Clover............................						
c. Pasture, range and other forage plants...........................					1	1
4. Diseases of cotton and other fiber plants...........................			3	10		13
5. Diseases of tobacco.................	3					3
6. Diseases of fruits and nuts[1].......	51/ 5	181/10	14/ 3	206/ 6	83/ 5	535/29
a. Stone fruits[1].....................	9/	47/ 2	8/	193/	32/	289/ 2
(1) Peaches......................	5	26	7	191	20	249
(2) Cherries.....................	1	16		1	8	26
(3) Apricots.....................	1			1	2	4
(4) Plums........................	2	3	1		2	8
(5) Other........................						
b. Pome fruits[1].....................	17/	85/ 9	3/	6/	28/	139/ 9
(1) Apples.......................	16	55	3	6	23	103
(2) Pears........................	1	21			5	27
(3) Other........................						
c. Berries[1]..........................	20/	39/	-/	1/	18/ 1	78/ 1
(1) Raspberries..................	4	10			7	21
(2) Blackberries.................				1		1
(3) Strawberries.................	14	29			7	50
(4) Other berries................	2				3	5
7. Diseases of vegetable and garden crops[1].............................	36/ 1	48/	6/	6/ 1	11/ 1	107/ 3
a. Peas and beans....................	2	16	2		2	22
b. Cucumbers.........................	7	2				9
c. Potatoes..........................	8	4		1	2	15
d. Sweetpotatoes.....................						
e. Tomatoes, peppers, eggplant........	9	26	2	4	6	47
f. Onions.............................						

See footnotes at end of table.

TABLE 6.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
g. Cabbage and related plants.........	5					5
h. Sweet corn.........................						
i. Other.............................	4		2			6
8. Diseases of ornamentals and nursery plants.........................	6	1	7	2	6	22
9. Diseases of flower garden and greenhouse plants.................	35	4	9	5	8	61
10. Diseases of forest and shade trees.	13	13	1	1	2	30
11. Other plant diseases...............	62	9	6	6	28	111
12. Fungicides and fungicide application and fungicide application equipment....................	6	9		6	5	26
C. Animal Diseases and Parasites........	28	23	104	74	62	291
1. Diseases..........................	28	19	102	74	60	283
a. Bacterial........................						
b. Mycotic..........................						
c. Non-infectious...................						
d. Viral............................						
e. Rickettsial......................						
f. Nutritional deficiencies.........						
g. Other............................	28	19	102	74	60	283
2. Parasites.........................		4	2		2	8
a. Helminth.........................		4	2		2	8
(1) Nemahelminthes..................						
(2) Platyhelminthes.................						
(3) Other...........................		4	2		2	8
D. Nematodes............................	2	8	8	10	5	33
E. Weeds[1].............................	245/20	197/11	107/ 3	157/27	203/23	909/84
1. Small grains[1]...................	-/	6/	4/	6/ 1	13/	29/ 1
a. Wheat............................				5	10	16
b. Oats.............................		5	1			6
c. Barley...........................					2	2
d. Rye..............................						
e. Rice.............................						
f. Other............................			3		1	4
2. Corn or sorghums..................	8	29	18	2	6	63
3. Forage crops......................	2		17	12	30	61
a. Alfalfa..........................	1			2	3	6
b. Clovers..........................			8	1		9
c. Other legume crops...............			1		1	2
d. Pasture, range or other forage crops.........................	1		8	9	26	44
4. Cotton or other fiber crops.........			7	2		9
5. Tobacco...........................						
6. Fruit and nut crops...............	14	37	1		7	59
7. Garden crops......................	15	18	2	3	7	45
a. General garden weeds.............	3	2	1	3	5	14
b. Peas and beans...................		4				4
c. Cucumbers........................		2				2
d. Potatoes.........................	2	3				5
e. Sweetpotatoes....................						
f. Tomatoes, peppers, eggplant......						
g. Onions...........................	2	3			2	7
h. Cabbage and related plants.......						

See footnotes at end of table.

TABLE 6.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
i. Sweet corn........................		1				1
j. Other truck and garden crops.......	8	3	1			12
8. Ornamental and nursery plantings....	2	1	1		1	5
9. Flower gardens and greenhouses......	2	1	1	1	2	7
10. Forests............................	6		2	6	1	15
11. Lawns.............................	58	29	4	37	48	176
12. Roadsides, ditch banks.............		3		4	4	11
13. Aquatic weeds......................	2			3	2	7
14. Herbicides and herbicide applicators...............................	116	62	47	54	59	338
F. Rodents............................	64	12	18	75	63	232
1. Rats..............................	19		9	62	10	100
2. Mice..............................	11	7	2	6	19	45
3. Ground squirrels...................	5					5
4. Other.............................	29	5	7	7	34	82
G. Noxious Wildlife...................	73	6	13	15	22	129
1. Mammal............................	41	1	2	9	15	68
2. Birds.............................	26	4	5	3	6	44
3. Other.............................	6	1	6	3	1	17
VI. MARKETING, DISTRIBUTION AND FARM AND HOME SERVICE ORGANIZATIONS.........	70	12	9	3	7	101
A. Marketing and Purchasing Cooperatives	1	1	2	1		5
1. Organizational questions...........		1				1
2. Financial questions................			2			2
3. Operational questions..............	1					1
4. Public relations and membership.....				1		1
B. Farm and Home Service Cooperatives...	1				1	2
1. Organizational questions...........					1	1
2. Financial questions................						
3. Operational questions..............	1					1
4. Public relations and membership.....						
C. Marketing Products Through Roadside or Other Farm Retail Markets[1]......	41/31	1/ 1	2/	-/	1/	45/32
1. Agricultural products..............	9		2		1	12
2. Home products (arts, crafts, etc.)..	1					1
D. Other Questions.....................	27	10	5	2	5	49
VII. SOIL AND WATER CONSERVATION AND MANAGEMENT, FORESTRY AND WILDLIFE.	586	548	407	665	507	2,713
A. Soil Management.....................	216	303	145	292	229	1,185
1. Land use..........................	9	4	5	6	4	28
2. Soil testing......................	67	61	56	113	82	379
3. Use of soil amendments (lime, sulfur, gypsum, trace elements, etc.).	35	30	38	36	30	169
4. Use of fertilizers (commercial and barnyard).........................	44	104	9	94	36	287
5. Production of soil-improvement crops	17	59	17	20	30	143
6. Crop rotations.....................	1	4			3	8
7. Land clearing.....................	11	1	3	13	12	40
8. Other questions...................	32	40	17	10	32	131
B. Water Management....................	52	30	69	269	81	501
1. Contour and strip cropping.........				1		1

See footnotes at end of table.

TABLE 6.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
2. Terracing.............................			4	1	1	6
3. Grass waterways......................	1			1	4	6
4. Water supply, storage and distribution.............................	15	4	43	25	12	99
5. Drainage.............................	11	9	3	6	6	35
6. Irrigation...........................	15	11	15	225	49	315
7. Other questions......................	10	6	4	10	9	39
C. Farm Forestry........................	268	178	115	49	164	774
1. Planting forest trees (windbreaks, shelterbelts, erosion control, Christmas trees, etc.).............	78	52	42	11	65	248
2. Timber-stand improvement (thinning, weeding and pruning forest and woodland trees)....................	21	9	13	1	7	51
3. Timber-harvesting (includes selective and other recommended cutting for forest products)..............	7	2	5			14
4. Estimating and appraising...........	24	1	6	2		33
5. Production of maple sirup or naval stores..............................	10	2				12
6. Treating wood products with preservatives (fence posts and building timbers)...........................	3	1	2	4	6	16
7. Marketing of forest products (includes markets and timber-selling)	44	9	11	1	2	67
8. Fire prevention.....................			4			4
9. Woods diseases......................	27	31	1		5	64
10. Woods insects......................	21	45	7	23	5	101
11. Other questions....................	33	26	24	7	74	164
D. Wildlife.............................	46	27	78	49	29	229
1. Construction and management of ponds for fish....................	20	13	62	28	10	133
2. Making food and cover plantings for wildlife............................	5	4	1		5	15
3. Protection of wildlife areas from fire or livestock.................						
4. Other questions.....................	21	10	15	21	14	81
E. General Nature Study and Conservation	4	10		6	4	24
VIII. PLANNING AND MANAGEMENT OF THE FARM BUSINESS.....................	129	151	196	209	160	845
A. Keeping and Analyzing Farm Records...	18	13	1	18	35	85
B. Developing an Overall Farm Plan......	11	10	15	13	22	71
C. Making Needed Annual Plans..........		1	3	1		5
D. Developing Supplemental Sources of Income.................................	2	3	10	1	3	19
E. Obtaining and Using Credit..........	2	2	28	4	20	56
F. Buying or Renting a Farm............	6	17	14	6	12	55
G. Legal Aspects of the Farm Business[1]..	19/ 6	11/	7/ 1	17/	15/ 2	69/ 9
1. Leases..............................	3	11	2	13	9	38
2. Workmen's compensation and insurance	1		1	4		6
3. Laws, regulations, inspections......	9		3		4	16

See footnotes at end of table.

TABLE 6.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
H. Income-Tax Accounting, Social Security and Related Questions.....	57	87	112	144	38	438
I. Other Questions......................	14	7	6	5	15	47
IX. FARM BUILDINGS AND MECHANICAL EQUIP-MENT................................	254	158	146	246	177	981
A. Arrangement of Farm Building Layout..	7	4	5	1	24	41
B. Construction of Farm Buildings.......	82	61	32	34	68	277
1. Dairy buildings......................	8	3	6	2	12	31
2. Beef buildings......................			1		1	2
3. Sheep buildings.....................			1	1	4	6
4. Swine buildings.....................	3	7	9	10		29
5. Poultry buildings...................	15	6	5	7	18	51
6. Machinery sheds....................	2	2	1			5
7. Crops storage and processing........	13	13	7	7	10	50
8. Other farm buildings................	20	16	1	3	16	56
9. Other questions.....................	21	14	1	4	7	47
C. Remodeling or Repairing Farm Buildings..........................	43	16	4	3	1	67
1. Dairy buildings.....................	4	4		2		10
2. Beef buildings......................		2		1		3
3. Sheep buildings....................						
4. Swine buildings....................		2	1			3
5. Poultry buildings..................	24	1	2			27
6. Machinery sheds....................						
7. Crops storage and processing........	10	4				14
8. Other farm buildings................	3	2				5
9. Other questions.....................	2	1	1		1	5
D. Selection or Construction of Farm-Building Equipment.................	66	34	30	16	45	191
1. Livestock equipment.................	17	8	24	9	22	80
2. Crops handling, grinding and testing	6	5	2		11	24
3. Refrigeration, ventilating, drying and heating.......................	40	19	4	7	11	81
4. Other questions.....................	3	2			1	6
E. Mechanical Equipment (Used Outside Farm Buildings).....................	48	34	72	160	18	332
1. Selection of farm mechanical equipment.........................	29	18	25	107	13	192
2. Developing labor-saving devices and equipment.........................	3			1	1	5
3. Use, care and repair of farm mechanical equipment...................	14	14	46	49	4	127
4. Other questions.....................	2	2	1	3		8
F. Electrical Equipment for Income-Producing Purposes.................	3	2			4	9
G. Other Engineering.....................	5	7	3	32	17	64
1. Roads, bridges and culverts.........	1	1			2	4
2. Gates and fences....................	1	3	2	16	12	34
3. Other questions....................	3	3	1	16	3	26
X. HOUSE AND SURROUNDINGS, FURNISHINGS AND EQUIPMENT.......................	821	246	701	495	487	2,750
A. House................................	33	64	161	96	124	478
1. Building a new house................		2	13	18	19	52

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
2. Remodeling or repairing the house...	3	9	5	18	11	46
3. Improving kitchen or laundry........	8	7	16	21	23	75
4. Improving storage space.............	3	6	2	7	7	25
5. Water and sewage systems............	6	16	18	17	38	95
6. Heating and cooling systems........	4	9	8	5	4	30
7. Electrical systems.................	1	9	93	1	3	107
8. Other questions....................	8	6	6	9	19	48
B. Landscaping Plans for Home Grounds (Also Industrial)..................	476	83	84	137	116	896 *
C. Home Equipment (Other Than Sewing Equipment).........................	62	29	76	58	84	309
1. Selection, use and care............	62	29	76	58	84	309
a. Ranges............................	3	5	16	15	6	45
b. Washers, ironers and dryers........	13	10	11	2	10	46
c. Refrigerators and freezers........	18	7	17	3	14	59
d. Cleaning equipment...............	1		2	1	2	6
e. Utensils.........................	22	7	23	22	48	122
f. Other questions..................	5		7	15	4	31
D. Home Furnishings.....................	250	70	380	204	163	1,067
1. Selection, use and care............	129	47	158	138	84	556
a. Furniture........................	3	2	14	5	5	29
b. Rugs.............................	40	9	16	24	18	107
c. Slipcovers.......................	26	14	7		5	52
d. Window accessories...............	19	10	53	86	29	197
e. Lighting equipment...............	27	4	11	1	3	46
f. Other questions..................	14	8	57	22	24	125
2. Repair and reconditioning[1]........	100/	18/	131/	43/ 1	30/	322/ 1
a. Refinishing furniture.............	65	7	83	10	17	182
b. Reseating chairs.................	28		31			59
c. Upholstery.......................	6	11	15	32	11	75
d. Accessories......................	1		2		2	5
3. Other questions....................	21	5	91	23	49	189
a. Furniture arrangement and accessories..........................		2	6		14	22
b. Color schemes and wall finishes....	11	3	53	16	17	100
c. Floor finishes...................	4		27	2	15	48
d. Other questions..................	6		5	5	3	19
XI. HOME MANAGEMENT AND FAMILY ECONOMICS.	135	48	82	29	96	390
A. Home Management......................	113	34	79	22	50	298
1. General management.................	11		3	2	3	19
2. Improving housekeeping methods......	19	3	17	2	17	58
3. Family laundering and stain removal.	57	31	59	18	29	194
4. Other questions....................	26				1	27
B. Family Economics....................	22	14	3	7	46	92
1. Outlook information................	1			3		4
2. Family financial planning...........	18	1	2	4	39	64
3. Keeping and analyzing home records..		1			7	8
4. Family legal matters................	2	12				14
5. Other questions....................	1		1			2
XII. CLOTHING.............................	266	121	373	435	212	1,407
A. Selecting and Buying Clothing........	13	13	106	155	36	323

* See breakdown p. 36.
  See other footnotes at end of table.

TABLE 6.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
1. General selection.....................		1	10	13	8	32
2. Ready-made clothes...................			8	1	1	10
3. Fabrics for clothing construction...	10	7	30	94	19	160
4. Other questions......................	3	5	58	47	8	121
B. Care and Mending of Clothing.........	18	9	11	1	20	59
1. Care...............................	7	7	5	1	7	27
2. Mending............................	2	1			2	5
3. Other questions....................	9	1	6		11	27
C. Clothing Construction.................	188	85	130	190	136	729
1. General construction...............	123	64	61	114	59	421
2. Pattern alteration and fitting......	37	6	18	9	17	87
3. Dress forms.........................					14	14
4. Tailoring...........................	2	1	3	14	12	32
5. Remodeling..........................			2	6	2	10
6. Other questions.....................	26	14	46	47	32	165
D. Sewing Equipment and Sewing Centers..	43	9	59	72	13	196
1. Selection, use and care............	43	9	59	72	13	196
a. Sewing machines and supplies.......	9	5	8	19	5	46
b. Using the sewing machine...........	10	4	15	·13	2	44
c. Other sewing equipment.............	8		25	7	4	44
d. Sewing centers.....................	16		11	32	2	61
e. Other questions....................				1		1
E. Grooming and Posture (Personal Appearance)........................	4	5	67	17	7	100
XIII. FOODS AND NUTRITION................	1,042	206	1,104	527	1,041	3,920
A. Food Preparation (How to Cook).......	312	50	362	105	263	1,092
1. Meats...............................	73	9	65	13	88	248
2. Vegetables..........................	30	4	16	9	27	86
3. Desserts...........................	39	7	162	34	45	287
4. Breads and rolls....................	18	1	25	5	25	74
5. Cereals.............................	1		4			5
6. Salads..............................	14		18	4	5	41
7. Casseroles and other one-dish meals.	1		14	1	6	22
8. Outdoor cooking.....................	69	8		15	19	111
9. Other...............................	67	21	58	24	48	218
B. Meal Planning (By Meal or Day).......	67	5	79	24	23	198
1. Family meals........................	11	1	24	3	19	58
2. Group meals.........................	56	4	55	21	4	140
C. Food Preservation....................	582	129	557	364	442	2,074
1. Canning.............................	195	34	119	171	102	621
a. Meats..............................	6		10	4	15	35
b. Fruits.............................	33	4	29	46	17	129
c. Vegetables.........................	63	6	39	76	49	233
d. Fair canning.......................			7	24	1	32
e. General............................	91	24	34	18	19	186
f. Other..............................	2			3	1	6
2. Freezing............................	259	52	260	95	194	860
a. Meats..............................	26	2	21	5	24	78
b. Fruits.............................	28	13	69	18	29	157
c. Vegetables.........................	37	9	116	30	30	222
d. Cooked foods.......................	54	1	5	10	6	76
e. General............................	96	14	24	27	82	243
f. Other..............................	18	13	25	5	23	84
3. Pickling............................	41	12	84	29	36	202

TABLE 6.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
4. Preserving and jelling..............	60	15	81	53	29	238
5. Other...............................	22	8	9	12	66	117
6. General.............................	5	8	4	4	15	36
D. Food Spoilage........................	4	5	6	9	12	36
1. Canned..............................	2		1	5	4	12
2. Frozen..............................		1	2		3	6
3. Other...............................	2	4	3	4	5	18
E. Nutrition...........................	5	6	30	5	49	95
1. Use of food in body (4 food groups).		3	3	4	15	25
2. Improving diets.....................	2		10		11	23
3. Special diets.......................	3	3	17	1	23	47
a. Weight control....................	2	1	6	1	14	24
b. Diabetes..........................		1	3		3	7
c. High blood pressure...............			5			5
d. Other.............................	1	1	3		6	11
F. Food Habits.........................	2		6		2	10
G. Food Value and Composition..........	19	3	13	2	66	103
H. Food Selection and Buying...........	40	6	21	13	116	196
1. Meats...............................	33	2	5	6	74	120
2. Vegetables..........................	1	2		1	15	19
3. Fruits..............................	2	1		1	12	16
4. General.............................	3			1	1	5
5. Other...............................	1	1	16	4	14	36
I. Family Food Supply (Month or Year)...	6		1	3	14	24
J. Miscellaneous Foods Questions.......	5	2	29	2	54	92
XIV. HEALTH, FAMILY LIFE AND SAFETY......	202	35	223	94	60	614
A. Health..............................	12	4	33	16	14	79
1. Sanitation practices and facilities.	1			1	1	3
2. First aid and home nursing..........	1	1	2	14		18
3. Health education leading to physical examination by a physician........					1	1
4. Dental health education.............			1		1	2
5. Mental health education.............			1	1		2
6. General health education............	2				7	9
7. Communicable diseases...............			6			6
8. Other questions.....................	8	3	23		4	38
B. Family Life.........................	180	29	183	75	44	511
1. Child development and guidance......	7	6	2	5	8	28
2. Play clothing and equipment.........						
3. Understanding roles of family members and strengthening family relationships.....................						
4. Individual adjustments and personality development................	3	4				7
5. Hospitality (includes etiquette and party planning)...................	9	2	43	23	9	86
6. Indoor home recreation (includes handicrafts).....................	158	17	134	45	25	379
7. Outdoor home recreation (includes handicrafts).....................	3				1	4
8. Other questions.....................			4	2	1	7
C. Safety..............................	10	2	7	3	2	24
1. Fire prevention (farm and home).....	8		2	1		11
2. Accident prevention (farm and home).		1		1		2

TABLE 6.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
3. Accident prevention (away from home).						
4. Other questions......................	2	1	5	1	2	11
XV. COMMUNITY DEVELOPMENT AND PUBLIC AFFAIRS.............................	854	185	1,399	1,884	1,056	5,378
A. Understanding of Citizenship Responsibilities and Functions of Government...............................	3		1			4
B. County and Community Improvement Clubs, Councils, Committees for Program Planning and Special Purposes...............................	691	86	785	1,597	926	4,085
1. 4-H Club questions..................	533	51	356	980	2 636	2,556
C. Community Problems.....................	42	50	86	110	29	317
1. General.............................				5	1	6
2. Health facilities, services and programs..........................	3.		20	36	3	62
3. Schools.............................	18	10	11	9	12	60
4. Churches............................	3	7	8	2		20
5. Town-country relations..............			4	.	2	6
6. Libraries..........................			19	6		25
7. Roads..............................	1	1				2
8. Telephones.........................						
9. Community centers...................		3	5	11		19
10. Recreation programs and facilities..	5	1	2	4		12
11. Community beautification...........	1		4		2	7
12. Other questions....................	11	28	13	37	9	98
D. Regional or Area Development Work.....	48	4	7	19	46	124
E. National Programs and Proposals Affecting Agriculture and Rural Life	65	45	517	154	43	824
F. World Affairs........................	5		3	4	12	24
XVI. MISCELLANEOUS........................	200	75	363	557	242	1,437
TOTALS..........................	7,864	4,573	9,112	9,132	7,525	38,206
*Landscaping.............................	476	83	84	137	116	896
General landscaping....................	20	7	26	14	13	80
Plants to use in landscaping; also structures (walls, etc.).............	49	2	32	28	15	126
General lawn care.....................	158	13	1	9	26	207
Selecting grass seed and planting......	94	20	11	39	33	197
Fertilizer and soil conditioning.......	133	34	10	41	22	240
Lawn problems.........................,	22	7	4	6	7	46

[1] The number on the left edge of the columns is the total for the category; the number on the right edge of the columns is the number of general questions not fitting under any of the specific headings.

[2] One Washington card read: "10,000 questions on how to run the fair - such as (1) Where do I enter these? (2) The rest room toilet is plugged, will you fix it? (3) Where do I tie my bull? (4) Where are the ribbons?" (9/14/58).

CHAPTER II

METHOD 2: INFORMATION THAT PEOPLE REQUEST BY MAIL FROM USDA

What's in the mail? The publications needs committee asked that familiar question as they searched for better guides than now available to determine information needed in publications. Like the questions people ask county agents, mail requests presumably reflect needs that concern people enough that they will seek help.

USDA annually receives between 300,000 and 500,000 requests from the public for information. These requests are easily accessible for sampling to determine the kinds of information requested directly from USDA. If the information obtained from analyzing mail requests is comparable to that obtained from other methods being studied, the mail analysis may be preferred because of the case of doing it.

In order to judge more accurately the value of mail analysis in determining publications needs, the committee developed and tested a procedure for analyzing mail requests for information. The report of that work follows.

PROCEDURE

A 10% systematic random sample was taken of mail requests received by USDA from the public during 26 sample days of 1958. The days were selected randomly, but with the following restrictions: One day was selected for each 2-week period; and the sample contained about the same number of Mondays, Tuesdays, Wednesdays, Thursdays and Fridays.

The requests were recorded on 3 x 5 cards and classified the same way as that used for the other five methods. See table 13 page 47.

The data also were tabulated to show the number of requests per States; the percentage carrying city, town and RFD addresses; the percentage that were requests for publications as contrasted to questions; and some additional information on sources of requests. We assume that the RFD and town addresses represent a mixture of rural farm and rural non-farm residents, and that requests carrying city street addresses are from urban residents.

SUMMARY OF DATA

The mail sample contained 5,577 requests for information from the public, which is about 1 request out of each 100 received in the USDA.

About 2/3 of the requests were on agricultural subjects; 1/3 on home economics subjects; and 1 1/2% on community development and public affairs.

Crops questions and foods questions each accounted for about 1/5 of all requests in the sample.

Nearly 3/4 of the crops requests were about horticultural crops.

About 1 request in 10 asked for information about landscaping, lawns and care of the home grounds.

Requests for information on livestock accounted for 1/7 of the total.

Marketing requests accounted for about 1/4 of the livestock requests but less than 1/10 of the crops requests.

Of the foods inquiries, about 1/3 requested information on food preservation, mainly freezing.

More than 3/4 of the letters were requests for specific publications; the others asked questions without reference to a publication.

About 2/3 of the requests carried city street addresses, reflecting the relatively high demand for information by urban residents.

About 1/5 of the requests were from schools and school students. More men than women wrote letters requesting information from USDA.

USES AND LIMITATIONS OF DATA

First, the data can serve as a guide in allocating publications resources among the various subject matter fields. For example, it helps in deciding the importance of horticultural topics to know that more than 1 request in 5 (22.1% of all requests) was for information on landscaping, lawns, and other horticultural crops.

The kind of information requested in the various fields is in general terms, however, because 3/4 of the requests were for publications rather than specific questions. For example, these requests show that a given number of persons wants to know something about growing vegetables in town and city, but most of the requests do not show specifically what the people want to know about growing vegetables.

Even when requests are more specific, as they are in the requests county agents receive, the questions are only those which concern people enough that they will seek help. The questions will not reflect new information of which people are still unaware. Nor will these questions reveal other unrecognized needs.

Second, the data also emphasize the high percentage of requests from urban residents. About 65% of the requests carried city street addresses, about 20% merely the name of a town, and about 15% carried RFD addresses. Although addresses are not completely accurate in determining the percentage of urban and farm residents, they do provide a useful indicator.

Third, the data indirectly help explain why the number of requests from the different States vary considerably; they show three factors that have little effect. Correlating these three factors--educational level, number of publications distributed locally, and distance from USDA--with number of requests per State showed enough association to explain about 27% of the variation in number of requests; educational level of the audience accounted for 13%.

Most of the variation is still unexplained, and sufficient data are not available to check the effect of publication promotion on the number of requests for information in a given subject matter field or geographic area.

You may have other interpretations as to uses and limitations of mail survey data.

ANALYSIS OF DATA

About 2/3 of the requests were on agricultural subjects; 1/3 on home economics subjects; and 1 1/2% on community development and public affairs.

TABLE 7.--PERCENTAGE OF REQUESTS IN EACH OF 14 MAIN CATEGORIES

Main topic categories	Number of requests	Percent of requests
Foods and nutrition..	1,106	19.8
Crops...	1,094	19.6
Livestock...	740	13.3
Soil and water management, forestry and wildlife.........	704	12.6
House and surroundings, furnishings and equipment........	597	10.7
Insects, diseases, weeds, etc............................	389	7.0
Clothing..	132	2.4
Planning and management of farm business.................	109	2.0
Farm buildings and mechanical equipment..................	99	1.8
Community development and public affairs.................	89	1.6
Health, family life and safety...........................	86	1.5
Marketing organizations..................................	68	1.2
Home management and family economics.....................	21	.4
Miscellaneous..	343	6.1
TOTAL...	5,577	100.0

Tables 2 and 5 list 259 requests for information about insects and other pests of specific crops and animals. Adding these to the insect category above increases the total of insect, disease, parasite and similar requests to 11.6% of the total.

Agriculture

Crop Requests--(19.6% of all requests)

Of the crop requests, 93.9% were on production and only 6.1% were about marketing.

Most of the questions were of a general nature; many of them were requests for a publication on growing vegetables in town and city.

General requests about crop production were classified under other production requests (table 8).

Nearly 3/4 (71.5%) of the requests were about horticultural crops (table 9). These do not include 449 requests on lawns, flowers, etc. that are classified under Category X, table 13. Adding these will raise the horticultural requests to about 4/5 of all crop requests.

TABLE 8.--KINDS OF CROP REQUESTS IN MAIL SAMPLE

Kind of crop request	Number of crop requests	Percent of crop requests	
(weed questions)			
Pests (insect questions).........	186	16.7	
(plant diseases)			
Seedbed preparation and planting.	57	5.1	
Harvesting, storing and curing...	57	5.1	
Use and selection of improved			
varieties and strains.........	45	4.0	
Use of lime and fertilizer[1]......	21	1.9	
Efficient work methods...........	16	1.4	
Other production requests........	664	59.7	Total Prod. - 93.9%
Preparation for market...........	33	3.0	
Commodity outlook................	30	2.7	
Other marketing requests........	4	0.4	Total Mktg. - 6.1%
TOTAL......................	1,113	100.0	

[1]Includes 19 requests from Category VII, of table 13, Soil and Water Management.

TABLE 9.--NUMBER AND PERCENTAGE OF REQUESTS FOR INFORMATION ABOUT EACH CROP

Kind of crop	Number of requests	Percent of requests
Vegetables......................................	465	42.5
Fruits and nuts.................................	196	17.9
Flowers and ornamentals.........................	121	11.1
Crops in general................................	105	9.6
Hay and forages.................................	50	4.6
Corn..	36	3.3
Grain crops in general..........................	34	3.1
Wheat...	23	2.1
Cotton..	20	1.8
Oil and sugar crops.............................	13	1.3
Other grain crops...............................	9	.8
Other fiber crops...............................	8	.7
Tobacco...	7	.6
Oats..	6	.5
Barley..	1	.1
Popcorn...	0	.0
Rye...	0	.0
TOTAL	1,094	100.0

Livestock Requests--(13.3% of all requests)

There were slightly more requests about poultry than about other classes of live-stock; and there were relatively few requests about horses.

Slightly more than 3/4 (76.4%) of the livestock requests were about production and about 1/4 on marketing. More than 1/4 of the production requests were general in nature and were classified as other production requests. Preparation for market and facts on outlook predominated among the marketing inquiries.

TABLE 10.--NUMBER AND PERCENTAGE OF REQUESTS ABOUT EACH CLASS OF LIVESTOCK

Class of livestock	Number of livestock requests	Percent of livestock requests
Poultry...	125	16.9
Beef...	105	14.2
Dairy..	97	13.1
Hogs...	80	10.8
Sheep and goats................................	79	10.7
Horses...	41	5.5
Other and general livestock....................	213	28.8
TOTAL.......................................	740	100.0

TABLE 11.--KINDS OF LIVESTOCK REQUESTS RECEIVED

Kind of livestock request	Number of livestock requests	Percent of livestock requests	
Labor, housing and management....	130	17.6	
Selection and breeding...........	87	11.8	
Pests............................	73	9.9	
Feeding..........................	53	7.2	
Efficient work methods...........	19	2.6	
Other production requests........	202	27.3	Total Prod. - 76.4%
Preparation for market...........	92	12.4	
Commodity outlook................	64	8.6	
Arranging to sell and selling....	20	2.7	
Other marketing requests........	0	0.0	Total Mktg. - 23.7%
TOTAL.......................	740	100.0	

Insects, Diseases, Parasites, Weeds, Rodents, Nematodes, and Noxious Wildlife--(7.0% of all requests)

General requests account for 1/14 of the category total. Pest requests from crop and livestock categories raise this ratio to 1/9. About 4/5 of the pest requests were about insects and 1/10 of the insect requests concerned beneficial insects.

Soil and Water Conservation and Management, Forestry and Wildlife--(12.6% of all requests)

More than 2/5 (43.2%) of these requests were about forestry. Of the forestry requests 32% were about marketing; 22%, planting; and 44%, "other questions."

Wildlife requests were 2.8% of all requests sampled and more than 1/5 (22.2%) of the requests in this category.

Water management accounted for 1/11 (9.2%) of the requests in this category. Of these more than 1/5 (23.1%) were about irrigation.

Sixty percent of the soil management questions were "other questions;" 19%, soil testing and fertilization; and 16.8%, land use and conservation.

<u>Planning and Management of the Farm Business</u>--(2% of all requests)

More than 1/6 (17.4%) of these requests concerned developing an overall farm plan. Other main requests in this category were about getting started in farming, farm records, and credit, each accounting for about 1/8 or less of the management questions.

<u>Farm Buildings and Mechanical Equipment</u>--(1.8% of all requests)

More than half (48 out of 91) of the requests in this category were about farm buildings with most of the building requests about construction.

<u>Marketing, Distribution, and Farm and Home Service Organizations</u>--(1.2% of all requests)

Not quite 1 1/2% of the requests related to marketing organizations, and most of these (35 out of 54) were of a miscellaneous nature; 18 of the 54 were about roadside or other farm retail markets.

Home Economics

Requests in the home economics categories totaled 1,942, or a little more than 1/3 (34.8%) of all requests.

<u>Foods and Nutrition</u>--(19.8% of all requests; 57% of the home economics requests)

About 1/3 (31.6%) of the requests in this category were on food preservation, with 215 of the 349 preservation requests about freezing.

More than 1/4 (29.6%) of the foods requests were about general nutrition and diets; 1/7 (14.2%) were about food preparation; and 1/7 about selecting foods.

<u>House and Surroundings, Furnishings and Equipment</u>--(10.7% of all requests; 30.7% of the home economics requests)

Nearly 4/5 (78.9%) of the requests in this category were about landscaping, lawns and flowers. Housing (building, remodeling, etc.) accounted for 1/7 (14.4%) of the requests and home equipment and home furnishings combined accounted for about 1/8 (11.6%) of the requests in this category.

<u>Clothing</u>--(2.4% of all requests; 6.8% of the home economics requests)

The clothing requests were about equally divided among three subjects: (1) selection and buying, (2) care and mending, and (3) clothing construction. Twenty-two of the 46 requests on clothing construction were about pattern alteration. Stain removal and mending each accounted for 38% of the questions on clothing care.

<u>Health, Family Life and Safety</u>--(1 1/2% of all requests; 4.4% of the home economics requests)

About 7/8 (87.2%) of these requests were about safety, predominantly fire and accident prevention.

<u>Home Management and Family Economics</u>--(0.4% of all requests; 1.1% of the home economics requests)

Fourteen of the 21 questions in the sample were about family financial planning and outlook.

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Community Development, Public Affairs, and Miscellaneous

Community Development and Public Affairs--(1.6% of all requests)

Nearly 2/5 (38.2%) of these requests were about government agricultural programs; about 1/5 (19.1%) about world affairs; 1/6 (16.8%) about public facilities and services; 1/7 (14.6%) about regional or area development work.

Miscellaneous--(6.1% of all requests)

Six percent of the requests did not readily fit any of the 15 main categories. These were classified miscellaneous.

Other Analyses of Data Collected

Requests for Publications vs. Questions--

Of the 5,577 requests, 4,337 or 77.8% were for specific publications while the rest did not mention publications. Table 13 gives this breakdown for each topic.

Questions asked county agents were just the opposite. Few of the questions referred to a specific publication.

Sources of Requests--

Four checks of sources were made: (1) whether the addresses on the requests were city street addresses, RFD addresses or just the name of the town; (2) the proportion of the requests from males and females; (3) the proportion of the requests from schools, other organizations, students, and other individuals; and (4) the relative number of requests from the various States.

Rural vs. Urban--

We recognize that RFD addresses are not identical with farm residence. However, it seems reasonable to assume that nearly all of those requests carrying city street addresses are from urban residents. The RFD and town addresses probably are nearly all rural-farm and rural-non-farm, as those two categories are defined by the census.
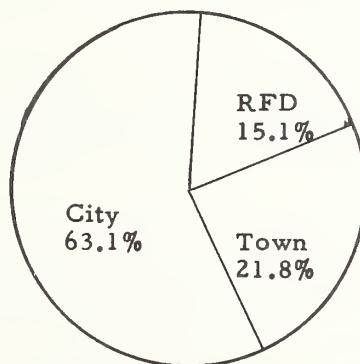
This pie chart shows the percentage of letters carrying each type of address. Keep in mind the limitations of equating addresses with rural and urban residence.

We have no data to estimate the percentage of people with RFD and town addresses who are farmers. However, the data do indicate the relatively high proportion of the requests that came from urban residents.

Requests by Sex--
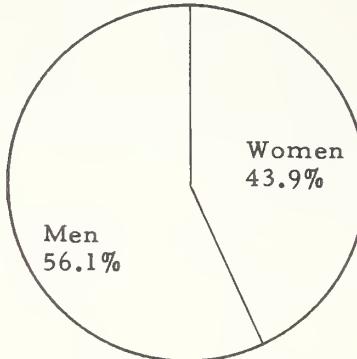
More men than women wrote to the USDA requesting information.

Requests from Students, Other Individuals, Schools and Other Organizations--

Mail requests received in USDA are divided into four groups--letterhead mail from organizations, requests from schools, requests from individual students and all other requests. We assumed this last group of requests came from individuals not included in one of the other three groups.

Student mail is separated on the basis of the handwriting and the nature of the request. Often student letters indicate that they want information for a class project. We recognize that the method used to group the mail may not be completely accurate; however, it indicates some characteristics of those who write USDA.
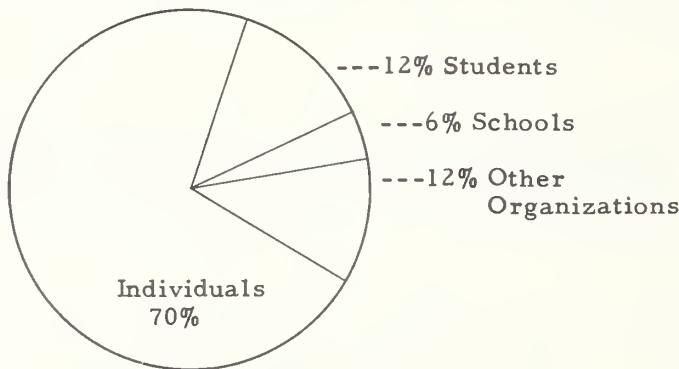
Division of USDA mail requests for information

Requests per State--

How widely do States vary in the number of requests for information? To what extent will educational level, volume of publications distributed by county extension agents, and the distance from the USDA influence the number of mail requests from each State? We have attempted to answer those questions in this section.

Simple and partial correlation analyses were made to check number of requests (the dependent variable) with three independent variables--educational level, volume of publications distributed by county agents and the distance from Washington, D. C., to the State capital of each State.

To allow for variation in population among the States, the number of mail requests per State is listed as the number of requests per million of population; and the volume of publications distributed by county agents is listed as the number per thousand of population. The educational level is based on 1950 census data for the percentage of people completing 8 or more grades of school.

On the basis of the correlation data*, educational level accounted for 13% of the variation among the States in number of mail requests; volume of publications distributed by county extension agents would explain 8% of the variation; and distance from Washington, D. C. would explain 6% of the variation. This still leaves most of the variation unexplained; and adequate data are not available at this time for further analysis.

Relation of USDA Press Announcements to Number of Requests--

Three types of USDA releases were checked for announcements of publications. These were the regular daily packet of press releases, Food and Home Notes, and the weekly Farm Paper Letter. Some publications were announced in all three types of releases; others were listed in only one of the three.

During the last 10 months of 1958, 52 publications were announced in newspapers as available by writing to the Office of Information. Six of these were popular booklets for farm and home readers; 3 Home and Garden Bulletins, 2 Leaflets, and 1 Farmers' Bulletin.

Our mail samples contained requests for 26 (half) of all 52 publications. Only 4 publications received more than 4 requests each. All 4 were meant for farm and home readers: Growing Vegetables in Town and City, 218 requests; Food for Fitness, 148 requests; Shopper's Guide to U. S. Grades for Food, 80 requests; and Making and Preserving Apple Cider, 9 requests.

Twenty-four USDA publications were mentioned in USDA Food and Home Notes during 1958. The mail samples contained requests for 18 of the 24 popular booklets; Roses for the Home led the list with 233 requests.

In the 1958 issues of USDA's weekly Farm Paper Letter mailed mostly to farm magazine editors, 280 USDA publications were announced. The mail sample contained requests for 124 of these 280 publications. The publication, "Growing Vegetables in Town and City", led the number of requests with 218.

TABLE 12.--NUMBER OF MAIL REQUESTS PER STATE RECEIVED BU USDA AND OTHER CHARACTERISTICS OF THOSE STATES (States are ranked by number of mail requests per million of population)

State	Number of requests in sample	Number of mail requests per million population (X₁)	Number of publications county agents distributed per thousand population[1] (X₂)	Percent of people completing 8 or more grades of school (X₃)	Distance from Washington, D.C. to State Capital (X₄)
Connecticut.............	118	50.9	97.2	74.9	340
Maryland................	135	45.6	72.0	62.3	38
New York................	737	45.4	205.4	73.7	364

[1] Data based on FES Reports

*For the statistician, educational level correlated significantly ($r13.24 = .37$; $P = .02$) with the number of mail requests when the other two independent variables were held constant. Volume of publications distributed by county agents correlated significantly with mail requests ($r12.34 = .29$; $P = .05$). But, distance from Washington, D. C. didn't produce a significant correlation with the number of mail requests when the other two independent variables were held constant ($r14.23 = .24$; $P = .10$).

TABLE 12.--Continued

State	Number of requests in sample	Number of mail requests per million population (X_1)	Number of publications county agents distributed per thousand population[1] (X_2)	Percent of people completing 8 or more grades of school (X_3)	Distance from Washington, D.C. to State Capital (X_4)
Kansas....................	89	42.0	212.2	81.5	1,142
Illinois..................	414	41.9	163.7	76.7	766
South Dakota..............	29	41.4	475.9	80.2	1,498
Wisconsin.................	161	40.9	223.4	76.5	828
Nevada....................	11	40.7	87.3	80.5	2,677
Missouri..................	170	39.8	66.0	73.0	944
Virginia..................	156	39.6	230.5	52.3	110
New Jersey................	220	38.3	73.6	73.1	168
Montana...................	26	37.7	225.3	79.3	2,207
Ohio......................	343	36.7	67.2	77.1	398
California................	520	36.3	84.4	80.0	2,773
Wyoming...................	11	34.4	255.6	81.4	1,658
Michigan..................	264	33.5	124.6	76.6	580
Delaware..................	15	33.3	186.8	71.0	98
Idaho.....................	22	33.3	432.4	83.1	2,460
Florida...................	143	32.3	142.9	66.5	832
Minnesota.................	106	31.4	161.6	78.9	1,112
Massachusetts.............	151	31.1	62.8	76.9	443
Pennsylvania..............	342	30.8	24.6	71.2	115
Kentucky..................	87	28.2	289.4	60.2	560
Utah......................	24	27.9	229.2	85.4	2,132
Alabama...................	86	26.9	353.7	48.1	828
Iowa......................	72	25.5	418.8	81.5	1,032
South Carolina...........	59	24.6	137.6	45.0	478
North Carolina...........	109	24.0	388.1	47.7	268
Oregon....................	41	23.2	396.1	83.1	2,863
New Mexico................	19	22.6	193.0	63.2	1,931
Oklahoma..................	50	21.9	456.7	69.2	1,360
Colorado..................	37	21.6	109.9	79.3	1,635
Vermont...................	8	21.6	790.7	81.9	526
Indiana...................	91	19.9	102.9	77.9	573
West Virginia	39	19.8	163.1	62.4	366
Mississippi..............	43	19.6	368.8	50.5	1,022
Georgia...................	74	19.4	192.1	46.9	656
Texas.....................	179	19.1	150.3	62.1	1,573
Washington................	50	18.0	116.0	82.4	2,855
Nebraska..................	25	17.1	419.1	81.8	1,191
North Dakota..............	11	16.9	607.6	73.4	1,564
Tennessee.................	58	16.7	250.8	56.9	699
Maine.....................	14	14.7	244.5	78.9	604
Arkansas..................	25	14.1	411.3	55.0	1,059
Arizona...................	15	13.2	95.9	69.7	2,369
New Hampshire.............	7	12.1	151.4	78.4	480
Louisiana.................	36	11.6	446.3	45.6	1,169
Rhode Island..............	7	8.0	110.1	69.7	407

[1] Data based on FES Reports

TABLE 13.--DETAILED CLASSIFICATION OF DATA FROM MAIL REQUESTS

Classification	Number of requests		
	Questions[1]	Publications[2]	Total
I. GRAIN CROPS...........................	34	75	109
A. Wheat................................	10	13	23
1. Production..........................	9	10	19
a. Seedbed preparation and planting......			
b. Selection and use of improved varieties and strains...............			
c. Use of fertilizers and lime...........			
d. Harvesting, storing and curing........			
e. Efficient work methods................			
f. Pests.................................		9	9
g. Other questions.......................	9	1	10
2. Farm marketing.........................	1	3	4
a. Preparation for market................			
b. Commodity outlook and market information.................................	1	3	4
c. Arranging to sell and selling.........			
d. Other questions.......................			
B. Corn.................................	15	21	36
1. Production..........................	15	18	33
a. Seedbed preparation and planting......		5	5
b. Selection and use of improved varieties and strains...............	2	1	3
c. Use of fertilizers and lime...........	1		1
d. Harvesting, storing and curing........		6	6
e. Efficient work methods................			
f. Pests.................................		2	2
g. Other questions.......................	12	4	16
2. Farm marketing.........................		3	3
a. Preparation for market................			
b. Commodity outlook and market information.................................		2	2
c. Arranging to sell and selling.........		1	1
d. Other questions.......................			
C. Oats.................................	1	5	6
1. Production..........................	1	4	5
a. Seedbed preparation and planting......			
b. Selection and use of improved varieties and strains...............		2	2
c. Use of fertilizers and lime...........			
d. Harvesting, storing and curing........			
e. Efficient work methods................			
f. Pests.................................			
g. Other questions.......................	1	2	3
2. Farm marketing.........................		1	1
a. Preparation for market................			
b. Commodity outlook and market information.................................		1	1
c. Arranging to sell and selling.........			
d. Other questions.......................			

See footnotes at end of table.

TABLE 13.--Continued.

Classification	Number of requests		
	Questions[1]	Publications[2]	Total
D. Barley....................................		1	1
1. Production...............................		1	1
a. Seedbed preparation and planting......			
b. Selection and use of improved varieties and strains...............			
c. Use of fertilizers and lime...........			
d. Harvesting, storing and curing........			
e. Efficient work methods................			
f. Pests.................................			
g. Other questions.......................		1	1
2. Farm marketing...........................			
a. Preparation for market................			
b. Commodity outlook and market informa- tion..................................			
c. Arranging to sell and selling.........			
d. Other questions.......................			
E. Rye.......................................			
1. Production...............................			
a. Seedbed preparation and planting......			
b. Selection and use of improved varieties and strains...............			
c. Use of fertilizers and lime...........			
d. Harvesting, storing and curing........			
e. Efficient work methods................			
f. Pests.................................			
g. Other questions.......................			
2. Farm marketing...........................			
a. Preparation for market................			
b. Commodity outlook and market informa- tion..................................			
c. Arranging to sell and selling.........			
d. Other questions.......................			
F. Other Grain (rice, dry peas, beans, etc.)...................................	2	7	9
1. Production...............................	2	4	6
a. Seedbed preparation and planting......			
b. Selection and use of improved varieties and strains...............			
c. Use of fertilizers and lime...........			
d. Harvesting, storing and curing........		1	1
e. Efficient work methods................			
f. Pests.................................		2	2
g. Other questions.......................	2	1	3
2. Farm marketing...........................		3	3
a. Preparation for market................		1	1
b. Commodity outlook and market informa- tion..................................			
c. Arranging to sell and selling.........		2	2
d. Other questions.......................			

See footnotes at end of table.

TABLE 13.--Continued.

Classification	Number of requests		
	Questions[1]	Publications[2]	Total
G. Grain Crops in General...................	6	28	34
1. Production.............................	5	21	26
a. Seedbed preparation and planting......		3	3
b. Selection and use of improved varieties and strains...............			
c. Use of fertilizers and lime...........			
d. Harvesting, storing and curing........	3	6	9
e. Efficient work methods................			
f. Pests.................................	1	12	13
g. Other questions.......................	1		1
2. Farm marketing.........................	1	7	8
a. Preparation for market................	1	3	4
b. Commodity outlook and market information................................		4	4
c. Arranging to sell and selling.........			
d. Other questions.......................			
II. COTTON AND OTHER FIBER CROPS.............	13	15	28
A. Cotton...................................	8	12	20
1. Production.............................	8	6	14
a. Seedbed preparation and planting......			
b. Selection and use of improved varieties and strains...............		4	4
c. Use of fertilizers and lime...........			
d. Harvesting, storing and curing........		1	1
e. Efficient work methods................			
f. Pests.................................		1	1
g. Other questions.......................	8		8
2. Farm marketing.........................		6	6
a. Preparation for market................		6	6
b. Commodity outlook and market information................................			
c. Arranging to sell and selling.........			
d. Other questions.......................			
B. Other Fiber Crops.......................	5	3	8
1. Production.............................	4	3	7
a. Seedbed preparation and planting......			
b. Selection and use of improved varieties and strains...............			
c. Use of fertilizers and lime...........			
d. Harvesting, storing and curing........			
e. Efficient work methods................			
f. Pests.................................			
g. Other questions.......................	4	3	7
2. Farm marketing.........................	1		1
a. Preparation for market................			
b. Commodity outlook and market information................................	1		1
c. Arranging to sell and selling.........			
d. Other questions.......................			

See footnotes at end of table.

TABLE 13.--Continued.

Classification	Number of requests		
	Questions[1]	Publications[2]	Total
III. OTHER CROPS.............................	240	717	957
A. Hay and Other Forage, Pasture, Range....	5	45	50
1. Production.............................	4	43	47
a. Seedbed preparation and planting......		1	1
b. Selection and use of improved varieties and strains...............		3	3
c. Use of fertilizers and lime...........			
d. Harvesting, storing and curing........		6	6
e. Efficient work methods................			
f. Pests.................................		10	10
g. Other questions.......................	4	23	27
2. Farm marketing.........................	1	2	3
a. Preparation for market................	1		1
b. Commodity outlook and market information.....................................		2	2
c. Arranging to sell and selling.........			
d. Other questions.......................			
B. Tobacco.................................	3	4	7
1. Production.............................	3	2	5
a. Seedbed preparation and planting......			
b. Selection and use of improved varieties and strains...............	1		1
c. Use of fertilizers and lime...........			
d. Harvesting, storing and curing........			
e. Efficient work methods................			
f. Pests.................................		1	1
g. Other questions.......................	2	1	3
2. Farm marketing.........................		2	2
a. Preparation for market................			
b. Commodity outlook and market information.....................................		2	2
c. Arranging to sell and selling.........			
d. Other questions.......................			
C. Oil and Sugar Crops.....................	5	8	13
1. Production.............................	4	7	11
a. Seedbed preparation and planting......			
b. Selection and use of improved varieties and strains...............		1	1
c. Use of fertilizers and lime...........			
d. Harvesting, storing and curing........	1		1
e. Efficient work methods................			
f. Pests.................................			
g. Other questions.......................	3	6	9
2. Farm marketing.........................	1	1	2
a. Preparation for market................			
b. Commodity outlook and market information.....................................	1	1	2
c. Arranging to sell and selling.........			
d. Other questions.......................			

See footnotes at end of table.

TABLE 13.--Continued.

Classification	Number of requests		
	Questions[1]	Publications[2]	Total
D. Fruits and Nuts.........................	61	135	196
1. Production.............................	60	131	191
a. Seedbed preparation and planting......		3	3
b. Selection and use of improved varieties and strains................	1	9	10
c. Use of fertilizers and lime..........			
d. Harvesting, storing and curing........		9	9
e. Efficient work methods................	4	11	15
f. Pests.................................	4	32	36
g. Other questions.......................	51	67	118
2. Farm marketing.........................	1	4	5
a. Preparation for market................		4	4
b. Commodity outlook and market information................................			
c. Arranging to sell and selling........			
d. Other questions.......................	1		1
E. Vegetables Including Potatoes and Herbs.	50	415	465
1. Production.............................	49	400	449
a. Seedbed preparation and planting......	2	1	3
b. Selection and use of improved varieties and strains................	2	8	10
c. Use of fertilizers and lime..........	1		1
d. Harvesting, storing and curing........	1	9	10
e. Efficient work methods................			
f. Pests.................................	3	85	88
g. Other questions.......................	40	297	337
2. Farm marketing.........................	1	15	16
a. Preparation for market................		8	8
b. Commodity outlook and market information................................	1	7	8
c. Arranging to sell and selling........			
d. Other questions.......................			
F. Flowers.................................	50	20	70
1. Production.............................	50	20	70
a. Seedbed preparation and planting......	3		3
b. Selection and use of improved varieties and strains................	1		1
c. Use of fertilizers and lime..........			
d. Harvesting, storing and curing........			
e. Efficient work methods................	1		1
f. Pests.................................	3	2	5
g. Other questions.......................	42	18	60
2. Farm marketing.........................			
a. Preparation for market................			
b. Commodity outlook and market information................................			
c. Arranging to sell and selling........			
d. Other questions.......................			
G. Ornamental Shrubs and Shade Trees.......	19	32	51
1. Production.............................	19	32	51
a. Seedbed preparation and planting......	1	17	18

See footnotes at end of table.

TABLE 13.--Continued.

Classification	Number of requests		
	Questions[1]	Publications[2]	Total
b. Selection and use of improved varieties and strains................	1	4	5
c. Use of fertilizers and lime...........			
d. Harvesting, storing and curing........			
e. Efficient work methods................			
f. Pests..................................	4	9	13
g. Other questions.......................	13	2	15
2. Farm marketing...........................			
a. Preparation for market................			
b. Commodity outlook and market informa- tion..................................			
c. Arranging to sell and selling.........			
d. Other questions.......................			
H. Crops in General.........................	47	58	105
1. Production...............................	46	46	92
a. Seedbed preparation and planting......	1	20	21
b. Selection and use of improved varieties and strains................	5		5
c. Use of fertilizers and lime...........			
d. Harvesting, storing and curing........		14	14
e. Efficient work methods................			
f. Pests..................................	3	3	6
g. Other questions.......................	37	9	46
2. Farm marketing...........................	1	12	13
a. Preparation for market................	1	8	9
b. Commodity outlook and market informa- tion..................................		2	2
c. Arranging to sell and selling.........		1	1
d. Other questions.......................		1	1
IV. LIVESTOCK...............................	152	588	740
A. Dairy Animals and Products..............	11	86	97
1. Production..............................	10	53	63
a. Selection and breeding................		18	18
b. Feeding...............................		6	6
c. Efficient work methods................		6	6
d. Labor, housing and management.........		20	20
e. Pests.................................			
f. Other questions.......................	10	3	13
2. Farm marketing..........................	1	33	34
a. Preparation for market................		16	16
b. Commodity outlook and market informa- tion..................................	1	17	18
c. Arranging to sell and selling.........			
d. Other questions.......................			
B. Poultry and Products....................	28	97	125
1. Production..............................	25	48	73
a. Selection and breeding................	3	9	12
b. Feeding...............................		5	5
c. Efficient work methods................			
d. Labor, housing and management.........	4	11	15

See footnotes at end of table.

TABLE 13.--Continued.

Classification	Number of requests		
	Questions[1]	Publications[2]	Total
e. Pests.....................................		6	6
f. Other questions.........................	18	17	35
2. Farm marketing............................	3	49	52
a. Preparation for market.................	2	16	18
b. Commodity outlook and market informa-			
tion..................................	1	13	14
c. Arranging to sell and selling.........		20	20
d. Other questions.........................			
C. Beef Cattle...............................	7	98	105
1. Production................................	7	55	62
a. Selection and breeding.................	1	13	14
b. Feeding.................................		11	11
c. Efficient work methods.................			
d. Labor, housing and management.........		19	19
e. Pests...................................			
f. Other questions.........................	6	12	18
2. Farm marketing............................		43	43
a. Preparation for market.................		37	37
b. Commodity outlook and market informa-			
tion..................................		6	6
c. Arranging to sell and selling.........			
d. Other questions.........................			
D. Sheep, Goats and Products.................	18	61	79
1. Production................................	17	47	64
a. Selection and breeding.................		6	6
b. Feeding.................................	1		1
c. Efficient work methods.................		2	2
d. Labor, housing and management.........	1	8	9
e. Pests...................................	2	16	18
f. Other questions.........................	13	15	28
2. Farm marketing............................	1	14	15
a. Preparation for market.................		8	8
b. Commodity outlook and market informa-			
tion..................................	1	6	7
c. Arranging to sell and selling.........			
d. Other questions.........................			
E. Swine.....................................	10	70	80
1. Production................................	9	61	70
a. Selection and breeding.................		13	13
b. Feeding.................................		4	4
c. Efficient work methods.................		2	2
d. Labor, housing and management.........		13	13
e. Pests...................................	1	20	21
f. Other questions.........................	8	9	17
2. Farm marketing............................	1	9	10
a. Preparation for market.................	1	1	2
b. Commodity outlook and market informa-			
tion..................................		8	8
c. Arranging to sell and selling.........			
d. Other questions.........................			

See footnotes at end of table.

TABLE 13.--Continued.

Classification	Number of requests		
	Questions[1]	Publications[2]	Total
F. Horses................................	17	24	41
1. Production	17	24	41
a. Selection and breeding...............	2	10	12
b. Feeding..............................		5	5
c. Efficient work methods...............			
d. Labor, housing and management.........	2	7	9
e. Pests...............................		2	2
f. Other questions......................	13		13
2. Farm marketing........................			
a. Preparation for market...............			
b. Commodity outlook and market informa-tion................................			
c. Arranging to sell and selling........			
d. Other questions......................			
G. Other Livestock and Products............	22	51	73
1. Production............................	22	49	71
a. Selection and breeding...............		6	6
b. Feeding..............................		2	2
c. Efficient work methods...............			
d. Labor, housing and management.........		12	12
e. Pests...............................		3	3
f. Other questions......................	22	26	48
2. Farm marketing........................		2	2
a. Preparation for market...............		2	2
b. Commodity outlook and market informa-tion................................			
c. Arranging to sell and selling........			
d. Other questions......................			
H. Livestock in General....................	39	101	140
1. Production............................	32	88	120
a. Selection and breeding...............	1	5	6
b. Feeding..............................	3	16	19
c. Efficient work methods...............		9	9
d. Labor, housing and management.........	1	32	33
e. Pests...............................	3	20	23
f. Other questions......................	24	6	30
2. Farm marketing........................	7	13	20
a. Preparation for market...............	6	3	9
b. Commodity outlook and market informa-tion................................	1	10	11
c. Arranging to sell and selling........			
d. Other questions......................			
V. MARKETING, DISTRIBUTION AND FARM AND HOME SERVICE ORGANIZATIONS...................	14	54	68
A. Marketing and Purchasing Cooperatives...			
1. Organizational questions..............			
2. Financial questions...................			
3. Operational questions.................			
4. Public relations and membership.......			

See footnotes at end of table.

TABLE 13.--Continued.

Classification	Number of requests		
	Questions[1]	Publications[2]	Total
B. Farm and Home Service Cooperatives......	2	1	3
1. Organizational questions...............	2	1	3
2. Financial questions.....................			
3. Operational questions...................			
4. Public relations and membership........			
C. Marketing Products Through Roadside or Other Farm Retail Markets.............	1	18	19
1. Agricultural products...................	1	18	19
2. Home products (arts, crafts, etc.).....			
I. Other Questions (Includes those not covered under specific commodities)...	11	35	46
VI. GENERAL QUESTIONS ON INSECTS, DISEASES, PARASITES, ETC........................	109	280	389
A. Beneficial..................................	74	45	119
1. Insects.................................	67	26	93
2. Diseases and parasites..................		1	1
3. Rodents.................................	3	16	19
4. Other...................................	4	2	6
B. Detrimental................................	35	235	270
1. Insects.................................	29	205	234
2. Diseases and parasites..................			
3. Rodents.................................	3	2	5
4. Weeds...................................	1	27	28
5. Other...................................	2	1	3
VII. SOIL AND WATER CONSERVATION AND MANAGE- MENT, FORESTRY AND WILDLIFE..........	247	457	704
A. Soil Management............................	37	100	137
1. Land use and conservation..............	5	18	23
2. Soil testing...........:...............	2	5	7
3. Use of soil amendments (lime, sulfur, gypsum, trace elements, etc.)........		6	6
4. Use of fertilizers (commercial and barnyard)............................	3	10	13
5. Production of soil-improvement crops...		5	5
6. Crop rotations..........................	3		3
7. Land clearing..........................		2	2
8. Other questions........................	29	54	83
B. Water Management...........................	6	59	65
1. Contour and strip cropping.............	1	3	4
2. Terracing..............................	1	4	5
3. Grass waterways.........................		2	2
4. Water supply, storage and distribution.		7	7
5. Drainage...............................		3	3
6. Irrigation.............................		15	15
7. Other questions........................	4	25	29
C. Farm Forestry..............................	73	231	304
1. Planting forest trees (windbreaks, shelterbelts, erosion control, Christmas trees, etc.)...............	8	60	68

See footnotes at end of table.

TABLE 13.--Continued.

Classification	Number of requests		
	Questions[1]	Publications[2]	Total
2. Timber-stand improvement (thinning, weeding and pruning forest and woodland trees)....................	3	1	4
3. Timber-harvesting (includes selective and other recommended cutting for forest products).....................		5	5
4. Production of maple sirup products and naval stores..........................	1	3	4
5. Marketing of forest products (includes markets and timber-selling).........	5/ 4	44/	[3] 49/ 4
a. Estimating and appraising.............	1	44	45
6. Loss prevention.......................	2/	39/ 4	[3] 41/ 4
a. Fire.................................	1	12	13
b. Diseases.............................	1	16	17
c. Insects.............................		2	2
d. Treating wood products with preservatives (posts, building materials, etc.)................................		5	5
7. Other questions.......................	54	79	133
D. Wildlife................................	103	53	156
1. Construction and management of ponds for fish............................	3	12	15
2. Making food and cover plantings for wildlife.............................	1	15	16
3. Protection of wildlife areas from fire or livestock..........................			
4. Other questions.......................	99	26	125
E. General Nature Study and Conservation...	23	14	37
VIII. PLANNING AND MANAGEMENT OF THE FARM BUSINESS...........................	9	100	109
A. Keeping and Analyzing Farm Reocrds......		9	9
B. Developing an Overall Farm Plan.........		19	19
1. Making needed annual plans.............			
C. Developing Supplemental Sources of Income................................		1	1
D. Obtaining and Using Credit..............	1	6	7
E. Buying or Renting a Farm................	1	12	13
F. Legal Aspects of the Farm Business	6/ 2	5/ 2	[3] 11/ 4
1. Leases.................................	4	2	6
2. Workmen's compensation and insurance...		1	1
3. Laws, regulations, inspections.........			
G. Income-Tax Accounting, Social Security and Related Questions..................		2	2
H. Getting Started in Farming..............		10	10
I. Other Questions........................	1	36	37
IX. FARM BUILDINGS AND MECHANICAL EQUIPMENT.	8	91	99
A. Arrangement of Farm-Building Layout.....		1	1
B. Construction of Farm Buildings..........	3	41	44
1. Machinery sheds.......................		9	9

See footnotes at end of table.

TABLE 13.--Continued.

Classification	Number of requests		
	Questions[1]	Publications[2]	Total
2. Crop storage and processing.............		2	2
3. Other farm buildings....................	3	19	22
4. Other questions........................		11	11
C. Remodeling or Repairing Farm Buildings..	1	2	3
1. Machinery sheds........................			
2. Crop storage and processing............			
3. Other farm buildings....................			
4. Other questions........................	1	2	3
D. Selection, Construction or Installation of Farm-Building Equipment............	1	9	10
1. Refrigeration, ventilating and drying..		3	3
2. Water and drainage systems.............	1	6	7
3. Other questions........................			
E. Mechanical Equipment (Used outside farm buildings)............................	1	11	12
1. Selection of farm mechanical equipment.		9	9
2. Developing labor-saving devices and equipment............................			
3. Use, care and repair of farm mechanical equipment............................	1	2	3
4. Other questions........................			
F. Electrical Equipment for Income-Producing Purposes....................	1	14	15
G. Other Engineering.......................	1	13	14
1. Roads, bridges and culverts............			
2. Gates and fences.......................	1	7	8
3. Other questions........................		6	6
X. HOUSE AND SURROUNDINGS, FURNISHINGS AND EQUIPMENT..............................	28	569	597
A. House...................................	6	76	82
1. Building a new house...................	2	20	22
2. Remodeling or repairing the house......		4	4
3. Improving kitchen or laundry...........		12	12
4. Improving storage space................		12	12
5. Water and sewage systems...............	2	5	7
6. Heating and cooling systems............	2	13	15
7. Electrical systems.....................			
8. Other questions........................		10	10
B. Landscaping Plans and Care of Home Grounds................................	18	431	449
1. Developing plans.......................	1		1
2. Selection and propagation of plants....	4		4
3. Planting...............................			
4. Care of lawns and other plants.........	10	430	440
a. Lawns.................................	6	106	112
b. Flowers...............................	3	324	327
c. Shrubs................................			
d. Trees.................................	1		1
5. Special problems.......................	1		1
6. General questions......................	1		1
7. Other questions........................	1	1	2

See footnotes at end of table.

TABLE 13.--Continued.

Classification	Number of requests		
	Questions[1]	Publications[2]	Total
C. Home Equipment (Other than sewing equipment).................................		33	33
1. Selection, use and care................		33	33
a. Ranges................................			
b. Washers, ironers and dryers..........		7	7
c. Refrigerators and freezers............		23	23
d. Cleaning equipment....................			
e. Utensils.............................		3	3
f. Other questions......................			
D. Home Furnishings......................	4	29	33
1. Selection, use and care................	4	17	21
a. Furniture............................	3		3
b. Rugs.................................	1	6	7
c. Slipcovers...........................		8	8
d. Window accessories...................			
e. Lighting equipment...................			
f. Other questions......................		3	3
2. Repair and reconditioning.............			
a. Refinishing furniture................			
b. Reseating chairs.....................			
c. Upholstery...........................			
d. Accessories..........................			
3. Other questions......................		12	12
a. Furniture arrangement and accessories.		2	2
b. Color schemes and wall finishes.......		4	4
c. Floor finishes.......................		6	6
d. Other questions......................			
XI. HOME MANAGEMENT AND FAMILY ECONOMICS....	6	15	21
A. Home Management.......................	1	4	5
1. General management....................		1	1
2. Improving housekeeping methods.........		3	3
3. Other questions......................	1		1
B. Family Economics......................	5	11	16
1. Outlook information...................		5	5
2. Family financial planning..............	4	5	9
3. Keeping and analyzing home records.....			
4. Family legal matters..................			
5. Other questions......................	1	1	2
XII. CLOTHING.............................	4	128	132
A. Selecting and Buying Clothing..........	2	31	33
1. General selection.....................		5	5
2. Ready-made clothes....................		16	16
3. Fabrics for clothing construction......		7	7
4. Other questions......................	2	3	5
B. Care and Mending of Clothes............	2	40	42
1. General care.........................		1	1
2. Mending..............................		16	16
3. Laundering...........................		8	8
4. Stain removal........................	1	15	16
5. Other questions......................	1		1

See footnotes at end of table.

TABLE 13.--Continued

Classification	Number of requests		
	Questions[1]	Publications[2]	Total
C. Clothing Construction......................		46	46
1. General construction.....................		5	5
2. Pattern alteration and fitting.........		22	22
3. Dress forms.............................			
4. Tailoring..............................		19	19
5. Remodeling..............................			
6. Other questions........................			
D. Sewing Equipment and Sewing Centers.....		9	9
1. Selection, use and care................		9	9
a. Sewing machines.......................		9	9
b. Other sewing equipment and supplies...			
c. Sewing centers........................			
d. Other questions.......................			
E. Grooming and Posture (Personal appearance)...................................		2	2
XIII. FOODS AND NUTRITION....................	98	1,008	1,106
A. Food Preparation (How to cook)..........	4	101	105
1. Meats...................................		15	15
2. Vegetables.............................	1	36	37
3. Desserts...............................		2	2
4. Breads and rolls.......................	1	2	3
5. Cereals................................		1	1
6. Salads.................................			
7. Casseroles and other one-dish meals....			
8. Outdoor cooking........................			
9. Other..................................	2	45	47
B. Meal Planning (By Meal or Day)..........	24	140	164
1. Family meals...........................	19	136	155
2. Group meals............................	5	4	9
C. Food Preservation......................	37	313	350
1. Canning................................	3	62	65
a. Meats.................................	1	15	16
b. Fruits...............................			
c. Vegetables...........................			
d. Fair canning.........................			
e. General..............................	2	47	49
f. Other................................			
2. Freezing...............................	26	191	217
a. Meats.................................	4	43	47
b. Fruits...............................		1	1
c. Vegetables...........................		1	1
d. Cooked foods.........................			
e. General..............................	22	133	155
f. Other................................		13	13
3. Pickling...............................		16	16
4. Preserving and jelling.................		40	40
5. Other..................................	4	3	7
6. General................................	4	1	5
D. Food Spoilage..........................			
1. Canned.................................			

See footnotes at end of table.

TABLE 13.--Continued.

Classification	Number of requests		
	Questions[1]	Publications[2]	Total
2. Frozen....................................			
3. Other....................................			
E. Nutrition................................	15	216	231
1. Use of food in body (4 food groups)....	15	215	230
2. Improving diets.........................			
3. Special diets...........................		1	1
a. Weight control......................			
b. Diabetes............................			
c. High blood pressure.................			
d. Other..............................		1	1
F. Food Habits..............................	3	5	8
G. Food Value and Composition...............	9	82	91
H. Food Selection and Buying................	2	144	146
1. Meats...................................		23	23
2. Vegetables..............................		10	10
3. Fruits.................................			
4. General................................	1	80	81
5. Other..................................	1	31	32
I. Family Food Supply (Month or Year)......			
J. Miscellaneous Foods Questions...........	4	7	11
XIV. HEALTH, FAMILY LIFE AND SAFETY.........	28	58	86
A. Health..................................	8		8
1. Sanitation practices and facilities....			
2. First aid and home nursing.............	2		2
3. Health education leading to physical examination by a physician...........			
4. Dental health education................			
5. Mental health education................			
6. General health education...............	3		3
7. Communicable diseases..................			
8. Other questions........................	3		3
B. Family Life.............................	2	1	3
1. Child development and guidance.........	1		1
2. Play clothing and equipment............			
3. Understanding roles of family members and strengthening family relation-ships..................................			
4. Individual adjustment and personality development.........................			
5. Hospitality.............................			
6. Recreation (indoor and outdoor)........	1	1	2
7. Vacations...............................			
8. Other questions........................			
C. Safety.................................	18	57	75
1. Fire prevention (farm and home)........	17	6	23
2. Accident prevention (farm and home)....		23	23
3. Accident prevention (away from home)...		5	5
4. Other questions........................	1	23	24

See footnotes at end of table.

TABLE 13.--Continued.

Classification	Number of requests		
	Questions[1]	Publications[2]	Total
XV. COMMUNITY DEVELOPMENT AND PUBLIC AFFAIRS.	57	32	89
A. Understanding of Citizenship Responsibilities and Functions of Government...			
B. County and Community Improvement Clubs, Councils, Committees for Program Planning and Special Purposes..........	1	2	3
C. Community Institutions, Services and Facilities.............................	18	4	22
1. General.................................			
a. Community beautification...............			
b. Farm-city relations....................			
2. Educational-religious institutions, facilities and programs...............	4		4
a. Churches..............................			
b. Libraries.............................			
c. Schools..............................	4		4
3. Public facilities and services..........	11	4	15
a. Fire and police protection.............		1	1
b. Health facilities, services and programs.............................	4	3	7
c. Recreation facilities and programs (parks, playgrounds, swimming pools, etc.)..................................	6		6
d. Roads and streets.....................	1		1
e. Water and sewage......................			
f. Community centers.....................			
4. Public utilities.......................			
a. Electric..............................			
b. Gas...................................			
c. Telephone.............................			
5. Other..................................	3		3
D. Regional or Area Development Work........	5	8	13
E. National Programs and Proposals Affecting Agriculture and Rural Life.............	29	5	34
F. World Affairs............................	4	13	17
XVI. MISCELLANEOUS............................	193	150	343
Totals...............................	1,240	4,337	5,577

[1] Number of requests in which people asked a question without reference to a publication.
[2] Number of requests in which people requested a specific publication by series number and/or title.
[3] The number on the left edge of the columns is the total for the category; the number on the right edge of the columns is the number of general questions not fitting under any of the specific headings.

CHAPTER III

METHOD 3: PUBLICATIONS THAT COUNTY EXTENSION AGENTS SAY ARE NEEDED

The committee recognized that questions from the public might not represent all publications needs. Obviously, people do not ask questions about new developments of which they are unaware. This is a basic consideration.

We assumed that county extension agents can often anticipate informational needs of people brought about by new technology and agricultural programs. Therefore, county agents may be able to accurately suggest needs for publications not reflected in questions from the public.

PROCEDURE

Agents were asked to consider and list additional topics on which they needed publications. They also were asked to list the questions these publications should answer; and to estimate the length and number of copies needed. No standard form was provided for reporting those additional needs.

FINDINGS

Interpretation of instructions for county agents to suggest needed publications apparently varied from county to county. Some agents listed only those topics not covered by questions from the public; others listed topics covered by only one or two questions from the public; and still others listed topics covered by several questions from the public. This variation limits comparison of this method with other methods of determining publications needs.

County agents in three of the five States suggested 235 topics on which publications were needed. The other two pilot States sent in questions received from the public, but no additional suggestions from agents.

Of the 235 suggestions for needed publications, 223 were the same questions asked by the public. However, on 60 of these 223 subjects, the public asked only 1 question on each topic.

USES AND LIMITATIONS

Due to the inadequate trial of this method, the data do not clearly demonstrate whether or not county agents' suggestions are a valuable supplement to the questions received from the public. However, it seems reasonable to assume that a county agent

as an educational leader could suggest publications needed to cover topics that the public did not yet know enough about to ask questions. The agent also might reflect the economic importance of an informational need which would not be adequately reflected in the number of questions from the public; and he (or she) might help translate questions from the public into publications content.

Thus it seems desirable to consider the county agents' suggestions of publications needs as a possible adjunct to other methods of determining needs until further proof of its value (or lack of value) is available.

In future studies of this method, it would seem advisable to get suggested publications needs from county agents not already recording questions from the public. That procedure would lessen the chance that results from one method would affect results with a second method from the same agent.

Paired counties could be used where one county keeps a record of questions from the public, while in a similar county the agents would list the publications needs for the same period. This would provide two kinds of information. It would show the extent to which the agents could predict the questions the public will ask; and it would show what information the agents thought was needed in addition to that requested by the public.

CHAPTER IV

METHOD 4: COUNTY EXTENSION PLANS OF WORK

What do leaders say?

Farm, civic and business leaders have been long recognized by extension and other educational agencies as a valuable source of information on the needs of people in their community. Extension agents rely upon the judgment of such leaders in developing annual plans of work.

We selected county extension plans of work as one method for study and comparison because:

1. Plans of work presumably show what leaders and extension agents think are the informational needs of people--including recognized and unrecognized needs.

2. Plans of work are readily available for analysis.

3. If they provide valid data on informational needs of the public, they can be used as a guide in preparing publications in advance of the public's request for the information.

PROCEDURE

We analyzed the 1958 extension plans of work from the same 27 counties participating in study Method 1. We analyzed each plan for content, and recorded each different item in the plan on a 3 x 5 card. An example of two items are "use of fertilizer on corn," and "keeping growers informed of ACP, SCS and other programs."

We classified the data under the same 16 main categories of the classification scheme used for the other methods.

SUMMARY OF DATA

1. More than 3/4 of the items concerned agricultural topics; nearly 1/4 were about home economics topics; and 1/7 about community development, public affairs and miscellaneous topics.

2. One-fourth of all items were about crops, including related insect, disease and weed items.

3. One-fifth of all items related to livestock.

4. Production items accounted for 89% of the crops items and 82% of the livestock items. Marketing items accounted for 11% and 15% respectively.

5. Of the insect items, well over 1/2 were about crop insects and more than 1/3 of these were about insects affecting fruits, truck and garden crops.

6. Only 1.9% of the items dealt with marketing, distribution and farm and home service organizations.

7. Nearly 1/2 of the soil management items were about soil testing and fertilizers.

8. Practically all of the water management items concerned irrigation.

9. One-fourth of the farm forestry items were about tree planting.

10. Two-fifths of the items on planning and management of the farm business were about developing an overall farm plan.

11. Items about income tax reporting and social security accounted for 1/4 of the planning and management of the farm business items.

12. One-third of the items in the farm buildings and mechanical equipment category were about mechanical equipment used outside of farm buildings; and most of these covered use, care and repair of farm machinery.

13. One-fourth of the home economics items were about houses, surroundings, furnishings and equipment.
    a. Nearly 2/5 of these were on lawns and home grounds beautification.

14. One-fourth of the home economics items related to foods and nutrition.
    a. One-third of these were about meal planning and food preparation; 1/5 on improving diets; 1/5 on food preservation; and 1/5 on planning and/or producing the home food supply.
    b. Less than 2% of the foods and nutrition items were on desserts and sweets.

15. One-fifth of the home economics items were on health, family life and safety.
    a. Well over 1/2 of these were on family life; nearly 1/3 on health; and 1/8 on safety.

16. One-sixth of the home economics items were on clothing.
    a. Nearly 2/3 of these were about construction; and nearly 1/4 about selecting and buying clothing.

17. Nearly 1/10 of the home economics items were on home management and family economics.
    a. Of these items, family financial planning stood highest with 63%.

18. Two-thirds of the community development and public affairs items were on county and community improvement clubs, councils and committees, mainly 4-H clubs.

19. Practically all the items could be classified in one of the categories of the classification list. Only six items had to be placed in the miscellaneous section.

USES AND LIMITATIONS OF DATA

Uses:

The plans of work data yielded nearly 2,000 informational needs for 530 different topics. Tabulation of these data showed the relative need for information on the different topics. This tabulation was based on the number of counties listing the same needs.

Study of the data will show what lay leaders and agents consider to be the main areas of need for information. For example, table 14 shows that the highest percentage of needs were under the livestock category. Within the livestock category, need for information on poultry and dairy was cited most often. Under the poultry category, 78% of the need was for information on production, while 22% was for information on marketing. Breaking production needs down still further we find the need for information on poultry house ventilation and home mixing of feeds among the many needs listed.

Using plans of work to obtain data on information needs of the people extension serves requires no additional work for county agents. The plans are readily available in State extension offices for anyone wishing to analyze them.

If plans of work are adequate they can be used as a guide for predicting informational needs in advance of the public's demand for the information.

Limitations:

County extension plans of work are based upon the judgment of lay leaders and extension workers. Thus, the usefulness of a plan of work for predicting informational needs depends upon:

1. How well leaders and agents know the informational needs of the people extension serves.

2. How accurately these needs are recorded in the plan of work.

TABLE 14.--RELATIVE NEED FOR INFORMATION BASED ON NUMBER OF ITEMS IN COUNTY EXTENSION PLANS OF WORK IN FIVE STATES

Main topic categories	Total		Mass.		Mich.		Miss.		Okla.		Wash.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Livestock	405	20.5	150	22.9	44	19.3	107	20.2	49	16.7	55	20.8
Crops	399	20.2	173	26.5	23	10.1	114	21.5	55	18.7	34	12.9
Community development and public affairs	273	13.9	52	8.0	13	5.7	118	22.2	20	6.8	70	26.5
Insects, diseases, weeds, etc.	151	7.7	53	8.1	27	11.8	31	5.8	21	7.1	19	7.2
Soil and water management, forestry and wildlife	136	7.0	26	4.0	15	6.6	40	7.5	40	13.6	15	5.7
House and surroundings, furnishings and equipment	114	5.8	39	6.0	15	6.6	28	5.3	16	5.4	16	6.1
Foods and nutrition	109	5.5	30	4.6	19	8.3	25	4.7	20	6.8	15	5.7
Health, family life, and safety	108	5.5	31	4.7	10	4.4	27	5.1	31	10.6	9	3.4
Clothing	77	3.9	27	4.1	6	2.6	11	2.1	17	5.8	16	6.1
Planning and management of the farm business	63	3.2	20	3.0	22	9.7	4	.8	8	2.7	9	3.4
Farm buildings and mechanical equipment	51	2.6	17	2.6	4	1.7	20	3.8	8	2.7	2	.7
Home management and family economics	40	2.0	22	3.4	8	3.5	2	.4	5	1.7	3	1.1
Marketing organizations	38	1.9	8	1.2	22	9.7	3	.6	4	1.4	1	.4
Miscellaneous	6	.3	6	.9	0	.0	0	.0	0	.0	0	.0
TOTAL	1,970	100.0	654	100.0	228	100.0	530	100.0	294	100.0	264	100.0

3. The ability of the reader to interpret informational needs from plans of work.

    a. Needs in plans of work are usually stated in general terms and do not show the specific questions to be answered.

    b. Plans of work seldom indicate how many people need information on a given topic. One item in a plan of work may be based on a need of 5,000 people; another on a need of only 50 people. Yet, from the plan of work one must assume both needs are equally important.

ANALYSIS OF DATA

As seen in table 14, 1,970 items were obtained from the analysis of the county extension plans of work. The table also shows the number and percent of items in each of the 14 main categories by States and the total. The 16 main categories were reduced to 14 for this method by combining three main crop categories. Although the report does not intend to make State comparisons the table clearly shows a high agreement in the relative order of items among States and with the total of the 5 States. The categories high in one State tend to be high in the others. Those low in one tend to be low in the others with a few exceptions.

About 1/5 (20.5%) were livestock items and about 1/5 (20.2%) were crop items. About 1/7 (13.9%) were items classified under Category XV, "Community Development and Public Affairs."

Grouping the main categories, we find that a little over 3/5 (63.1%) of the items were about agriculture; nearly 1/4 (22.7%) were about home economics; and about 1/7 (14.2%) community development, public affairs and miscellaneous items.

Agriculture

Agricultural items accounted for 63.1% of all items. The seven main agricultural items ranked as follows on the basis of number of items: (1) livestock; (2) crops; (3) insects, diseases, parasites, rodents and weeds; (4) soil and water conservation and management, forestry and wildlife; (5) planning and management of the farm business; (6) farm buildings and mechanical equipment; and (7) marketing, distribution and farm and home service organizations.

Livestock Items--(20.5% of all items for the 5 States)

Among the five classes of livestock, the highest percentage of items, 32.9%, were about poultry, as shown in table 15. Dairy was second with 28.9%. Beef cattle items were low in Massachusetts, as expected, and consistently higher in the other four States.

TABLE 15.--LIVESTOCK ITEMS IN COUNTY EXTENSION PLANS OF WORK IN FIVE STATES

Class of livestock	Total		Mass.		Mich.		Miss.		Okla.		Wash.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Poultry.....................	133	32.9	68	45.3	8	18.2	32	30.0	13	26.5	12	21.8
Dairy......................	117	28.9	51	34.0	12	27.3	20	18.7	12	24.4	22	40.0
Other and general livestock.	56	13.8	9	6.0	10	22.7	14	13.0	12	24.4	11	20.0
Beef.......................	41	10.1	3	2.0	7	15.9	16	15.0	7	14.5	8	14.6
Swine......................	32	7.9	7	4.7	5	11.4	15	14.0	4	8.2	1	1.8
Sheep......................	26	6.4	12	8.0	2	4.5	10	9.3	1	2.0	1	1.8
Total...................	405	100.0	150	100.0	44	100.0	107	100.0	49	100.0	55	100.0

Table 16 shows that nearly 1/5 (18.4%) of the livestock questions concerned marketing and about 4/5 (81.6%) were production items.

"Other production items" ranked first among the production items, accounting for 2/5 (39.9%) of all livestock items. This category contained items not classifiable under the other production categories. Selection and breeding items ranked second with 13.7%.

About 1/10 of the items (10.8%) were concerned with outlook information.

Crop Items--(20.2% of all items for the 5 States)

Of the crop items in table 17, vegetables and potatoes was highest with 22.6%; fruits and nuts a close second with 21.1%; followed by hay and forages, 16.3%; and flowers and ornamentals, 12.5%.

Crop related items are also recorded under Category V, "Insects, Diseases, etc.," and Category VII, "Soil and Water Management," (table 19). In table 18 these related items are added to the crop items to give a more complete picture of the kinds of crop items. Adding the related items increased the percent of crop items from 20.2% to 25.4%.

Of the crop items, 88.6% were production items and 11.4% were marketing items.

Almost half (46.2%) of the crop items could not be classified in any specific sub-category so were placed under "other production items." The "other" items often were general in nature and covered a variety of problems. The large number of these items indicates the lack of detail of items in county extension plans of work. "Other production items" ranked first in percent of items, followed by fertilizer and lime; varieties; insects; and weeds.

As with livestock, most of the crop marketing items were concerned with commodity outlook information.

TABLE 16.--KINDS OF LIVESTOCK ITEMS IN COUNTY EXTENSION PLANS OF WORK

Kind of livestock item	Total		Mass.		Mich.		Miss.		Okla.		Wash.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Production --												
Other production items....	178	39.9	67	40.4	1	1.9	56	39.7	23	43.4	41	70.7
Selection and breeding....	61	13.7	5	3.0	12	22.6	25	21.6	15	28.3	4	6.9
Diseases[1]................	45	10.1	16	9.6	9	17.0	15	12.9	3	5.7	2	3.4
Labor, housing and management....................	34	7.6	16	9.6	5	9.4	7	6.0	4	7.5	2	3.4
Feeding...................	33	7.4	14	8.4	4	7.5	8	6.9	1	1.8	6	10.4
Insects[1].................	7	1.6	0	.0	0	.0	5	4.3	1	1.8	1	1.7
Efficient work methods....	6	1.3	5	3.0	1	1.9	0	.0	0	.0	0	.0
Production Total........	364	81.6	123	74.0	32	60.3	106	91.4	47	88.5	56	96.5
Marketing --												
Commodity outlook........	48	10.8	26	15.7	11	20.8	10	8.6	0	.0	1	1.7
Preparation for market....	31	7.0	15	9.0	10	18.9	0	.0	6	11.5	0	.0
Arranging to sell and selling................	2	.4	2	1.2	0	.0	0	.0	0	.0	0	.0
Other marketing items.....	1	.2	0	.0	0	.0	0	.0	0	.0	1	1.7
Marketing Total........	82	18.4	43	25.9	21	39.7	10	8.6	6	11.5	2	3.4
TOTAL................	446	100.0	166	99.9	53	100.0	116	100.0	53	100.0	58	99.9

[1] From Classification Category V.

Adding the disease and insect items in table 16 makes the total number of livestock items larger than in table 15.

TABLE 17.--CROP ITEMS IN COUNTY EXTENSION PLANS OF WORK IN FIVE STATES

Crop	Total		Mass.		Mich.		Miss.		Okla.		Wash.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Vegetables and potatoes......	90	22.6	45	26.0	5	21.8	22	15.7	9	16.4	9	26.5
Fruits and nuts..............	84	21.1	58	33.5	4	17.4	9	6.4	3	5.4	10	29.4
Hay and forages.............	65	16.3	11	6.4	8	34.8	26	18.6	18	32.7	2	5.9
Flowers and ornamentals......	50	12.5	44	25.4	3	13.0	2	1.5	0	.0	1	2.9
Crops in general.............	38	9.5	9	5.2	3	13.0	6	4.3	13	23.6	7	20.6
Cotton.......................	24	6.0	0	.0	0	.0	20	14.3	4	7.4	0	.0
Corn.........................	20	5.0	0	.0	0	.0	20	14.3	0	.0	0	.0
Other grain and general grain	8	2.0	0	.0	0	.0	3	2.1	2	3.6	3	8.8
Wheat........................	7	1.8	0	.0	0	.0	26	18.6	5	9.1	2	5.9
Tobacco......................	6	1.5	6	3.5	0	.0	0	.0	0	.0	0	.0
Oats.........................	4	1.0	0	.0	0	.0	3	2.1	1	1.8	0	.0
Oil and sugar crops..........	3	.7	0	.0	0	.0	3	2.1	0	.0	0	.0
Barley.......................	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Rye..........................	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Other fiber crops............	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Popcorn......................	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
TOTAL.....................	399	100.0	173	100.0	23	100.0	140	100.0	55	100.0	34	100.0

TABLE 18.--KINDS OF CROP ITEMS IN COUNTY EXTENSION PLANS OF WORK

Kind of crop item	Total		Mass.		Mich.		Miss.		Okla.		Wash.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Production --												
Other production items...	231	46.2	111	54.1	2	5.3	80	62.0	17	22.4	21	40.4
Use of fertilizers and lime[1]...................	51	10.2	15	7.3	5	13.2	12	9.3	14	18.4	5	9.6
Selection and use of improved varieties and strains...............	39	7.8	4	2.0	3	7.9	6	4.7	19	25.0	7	13.5
Insects[2].................	37	7.4	21	10.2	3	7.9	5	3.8	7	9.2	1	1.9
Weeds[3]..................	31	6.2	9	4.4	3	7.9	3	2.3	4	5.3	12	23.1
Seedbed preparation and planting...............	23	4.6	1	.5	1	2.6	13	10.1	8	10.5	0	.0
Harvesting, storing and curing..................	14	2.8	2	1.0	4	10.5	3	2.3	3	4.0	2	3.9
Diseases[4]...............	9	1.8	0	.0	7	19.4	0	.0	1	1.3	1	1.9
Efficient work methods...	8	1.6	3	1.5	2	5.3	2	1.6	0	.0	1	1.9
Production Total....	443	88.6	166	81.0	30	79.0	124	96.1	73	96.1	50	96.2
Marketing --												
Commodity outlook........	37	7.4	26	12.7	6	15.8	4	3.1	1	1.3	0	.0
Other marketing items....	20	4.0	13	6.3	2	5.3	1	.8	2	2.6	2	3.8
Marketing Total.....	57	11.4	39	19.0	8	21.1	5	3.9	3	3.9	2	3.8
TOTAL..........	500	100.0	205	100.0	38	100.0	129	100.0	76	100.0	52	100.0

[1] Includes lime, fertilizer and soil testing items from Classification Category VII, A-2, 3 and 4.
[2] Includes Category V, A-4, 5, 6, 7, 8, 9, 13, 14, 15, 16 and 17.
[3] Includes all of Category V, E.
[4] Includes all of Category V, B.

The total number of crop items in table 18 is larger than in tables 14 and 17 because of the addition of lime, fertilizer and soil testing items from Category VII and crop-related insect, disease and weed items from Category V, table 19.

<u>Insects, Diseases and Parasites of Plants and Animals, Nematodes, Weeds, Rodents and Noxious Wildlife</u>--(7.7% of all items for the 5 States)

About 2/5 (42.4%) of the items in this category were about insects. Of the insect items, well over 1/2 were about crop insects and over 1/3 of these about insects affecting fruits, truck and garden crops. There was a scattering of items among the other insect sub-categories.

Animal diseases accounted for nearly 1/3 (29.8%) of this main category; weeds about 1/5.

<u>Marketing, Distribution and Farm and Home Service Organizations</u>--(1.9% of all items for the 5 States)

Two-thirds (65.8%) of the items in this main category were concerned with retail market outlets and roadside markets. A few were about group marketing, local market conditions and outlook.

<u>Soil and Water Conservation and Management, Forestry and Wildlife</u>--(7.0% of all items for the 5 States)

More than 1/3 (35.5%) of these items were about soil management and nearly 1/2 of these were about soil testing and fertilizers.

Water management accounted for 1/5 (21.0%) of the items in this main category and practically all of these were about irrigation.

Farm forestry items accounted for 1/5 (20.3%) of the items in this category. About 26% of these were concerned with tree planting.

There were a few items on wildlife and general nature study and conservation.

<u>Planning and Management of the Farm Business</u>--(3.2% of all items for the 5 States)

Two-fifths (41.3%) of the items in this main category were about developing an overall farm plan. This high proportion of items in county extension plans of work probably reflects the emphasis being placed on farm and home development. In contrast, however, the public does not see the need for information on this topic to the same degree. Developing an overall farm plan accounted for only 8.4% of the questions in the main category in the classification of questions people ask extension agents.

Items about income tax, social security and related questions accounted for 24% in the county plans of work and 52% of the questions the public asked the agents.

The above two comparisons are interesting because they indicate the difference between what people ask for help on and what lay leaders and professional personnel think is needed (needs unrecognized by the public).

<u>Farm Buildings and Mechanical Equipment</u>--(2.6% of all items for the 5 States)

One-third (35.3%) of the items in this main category were about mechanical equipment used outside farm buildings and most of these were about use, care and repair of farm machinery.

One-third (35.3%) of the items were about construction of farm buildings. Selection and construction of farm building equipment accounted for 1/5 (19.6%) of the items in the main category.

Home Economics

Items in the five home economics categories (X to XIV, incl.) totaled 448, which is nearly 1/4 (22.7%) of all 1,970 items in the county plans of work.

Of the home economics items, 25% were on house and surroundings, furnishings and equipment; 24% on foods and nutrition; 24% on health, family life and safety; 17% on clothing; and 9% on home management and family economics.

House and Surroundings, Furnishings and Equipment--(5.8% of all items for the 5 States)

Nearly 2/5 (36.8%) of the items in this main category were on lawns and home grounds beautification; nearly 1/3 (30.7%) were about home furnishings; nearly 1/4 (23.7%) about building and remodeling houses; and 8.9% about home equipment, excluding sewing equipment.

Home Management and Family Economics--(2.0% of all items for the 5 States)

Family financial planning stood highest in this main category with 62.5%. Contrasting this figure with that (16.4%) obtained from the questions the public asked the agents again indicates the difference between felt needs and unrecognized needs.

There is quite a difference in the conduct of extension work between a situation in which the public is already interested and a situation in which the interest must be developed.

The contrasting data shows that extension is definitely emphasizing certain areas of the Scope Report.

Clothing--(3.9% of all items for the 5 States)

Nearly 2/3 (62.3%) of the clothing items were about construction, and nearly 1/4 (23.4%) were about selecting and buying clothing.

Foods and Nutrition--(5.9% of all items for the 5 States)

One-third (33.0%) of the items in this main category were about meal planning and food preparation; 1/5 (22.9%) on improving diets; 1/5 (20.2%) on food preservation; and 1/5 (19.3%) on planning and/or producing the home food supply.

County plans of work showed less than 2% of the items in the foods and nutrition category on desserts and sweets, but the questions the public asked showed over 7%.

Health, Family Life and Safety--(5.5% of all items for the 5 States)

Well over 1/2 (56.5%) of the items in this main category were about family life; nearly 1/3 (30.6%) were on health and 13% on safety.

Community Development, Public Affairs and Miscellaneous

Community Development and Public Affairs--(13.9% of all items for the 5 States)

Two-thirds (65.9%) of the items in this main category were on county and community improvement clubs, councils and committees, of which 3/4 (76.7%) were on 4-H clubs. About 16% were on regional and area development work; and 13% on community problems such as health facilities, community centers, recreation programs, community beautification, schools, churches and libraries.

<u>Miscellaneous</u>--(0.3% of all items for the 5 States)

Only 6 of the 1,970 items resulting from the analysis of the county plans of work could not be classified under one of the 733 categories in the classification list in table 19.

Critique of the Method

County extension plans of work are based on the judgment of lay leaders and county extension personnel. Together they prepare a plan of work to tackle the important problems. Hence, these plans are a source of data about the needs of the public for information and are useful in planning and preparing publications. But how do they rate in determining the public's need for information when measured against these five criteria: (1) Felt needs of the public; (2) Program needs; (3) Widespread needs; (4) Depth of detail; and (5) Feasibility of getting the data about needs?

1. <u>Felt needs of the public</u>. County extension plans of work do not stand high as a source of felt needs of the public for information.

    Requests for information are felt needs. Although many of these requests may seem inconsequential, they are very important to the person who wants the help.

    Although county extension plans of work may in part reflect the felt needs of the people, they mainly reflect the thinking of lay leaders and professional personnel.

2. <u>Program needs</u>. County extension plans of work stand high on this criterion because they contain data about widespread problems, and plans for educational programs to be conducted during the year.

3. <u>Widespread needs</u>. County extension plans of work stand fairly high in this respect.

    They often, but not always, represent needs of widespread interest in the county or the country. Demand for a commodity is usually taken as a signal for the supply. Widespread request for information cannot be denied without undesirable repercussions.

    When an item is listed many times in plans of work, it will receive priority consideration, <u>other things being equal</u>. A publication on this item will have widespread use.

4. <u>Depth of detail</u>. County extension plans of work stand relatively low in giving detailed and specific information about needs.

    In planning and preparing a publication we need to know our audience. We need to know more than that it wants information about vegetables, or even tomatoes, or more specifically tomato diseases. We need to know what diseases are causing trouble and other questions the public has. Then we are in a better position to select the content for the publication.

5. <u>Feasibility</u>. County extension plans of work stand relatively high on this criterion.

    They are easy to obtain. When they are assembled they can be analyzed fairly quickly. The cost is not too great. Training of a person to make objective and consistent analysis is necessary.

To sum up--County extension plans of work are useful and practical sources of data about the needs of the public for information, and therefore are a partial basis for determining publications to print. They stand high on criterion 2, program needs, and criterion 5, feasibility. They stand fairly high on criterion 3, widespread needs. They stand low on criterion 1, felt needs, and on criterion 4, depth of detail.

TABLE 19.--DETAILED CLASSIFICATION OF DATA COUNTY PLANS OF WORK

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
I. GRAIN CROPS............................			26	8	5	39
A. Wheat.................................				5	2	7
1. Production...........................				3	2	5
a. Seedbed preparation and planting...						
b. Selection and use of improved varieties and strains............				3		3
c. Use of fertilizers and lime........					1	1
d. Harvesting, storing and curing.....						
e. Efficient work methods.............						
f. Other questions....................					1	1
2. Farm marketing.......................				2		2
a. Preparation for market.............				2		2
b. Commodity outlook and market information......................						
c. Arranging to sell and selling......						
d. Other questions....................						
B. Corn.................................			20			20
1. Production...........................			20			20
a. Seedbed preparation and planting...			1			1
b. Selection and use of improved varieties and strains............			2			2
c. Use of fertilizers and lime........			2			2
d. Harvesting, storing and curing.....			1			1
e. Efficient work methods.............						
f. Other questions....................			14			14
2. Farm marketing.......................						
a. Preparation for market.............						
b. Commodity outlook and market information......................						
c. Arranging to sell and selling......						
d. Other questions....................						
C. Oats.................................			3	1		4
1. Production...........................			3	1		4
a. Seedbed preparation and planting...			1			1
b. Selection and use of improved varieties and strains............				1		1
c. Use of fertilizers and lime........						
d. Harvesting, storing and curing.....						
e. Efficient work methods.............						
f. Other questions....................			2			2
2. Farm marketing.......................						
a. Preparation for market.............						
b. Commodity outlook and market information......................						
c. Arranging to sell and selling......						
d. Other questions....................						
D. Barley...............................						
1. Production...........................						
a. Seedbed preparation and planting...						
b. Selection and use of improved varieties and strains............						
c. Use of fertilizers and lime........						
d. Harvesting, storing and curing.....						
e. Efficient work methods.............						
f. Other questions....................						

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
2. Farm marketing........................						
a. Preparation for market..............						
b. Commodity outlook and market information........................						
c. Arranging to sell and selling......						
d. Other questions.....................						
E. Rye....................................						
1. Production............................						
a. Seedbed preparation and planting...						
b. Selection and use of improved varieties and strains............						
c. Use of fertilizers and lime........						
d. Harvesting, storing and curing.....						
e. Efficient work methods.............						
f. Other questions.....................						
2. Farm marketing........................						
a. Preparation for market..............						
b. Commodity outlook and market information........................						
c. Arranging to sell and selling......						
d. Other questions.....................						
F. Other Grain (rice, dry peas, beans, etc.)................................		.	1	2		3
1. Production.....:......................			1	2		3
a. Seedbed preparation and planting...			1			1
b. Selection and use of improved varieties and strains............				2		2
c. Use of fertilizers and lime........						
d. Harvesting, storing and curing.....						
e. Efficient work methods.............						
f. Other questions.....................						
2. Farm marketing........................						
a. Preparation for market..............						
b. Commodity outlook and market information........................						
c. Arranging to sell and selling......						
d. Other questions.....................						
G. Grain Crops in General................			2		3	5
1. Production............................			1		3	4
a. Seedbed preparation and planting...						
b. Selection and use of improved varieties and strains............					1	1
c. Use of fertilizers and lime........						
d. Harvesting, storing and curing.....					1	1
e. Efficient work methods.............						
f. Other questions.....................			1		1	2
2. Farm marketing........................			1			1
a. Preparation for market..............						
b. Commodity outlook and market information........................			1			1
c. Arranging to sell and selling......						
d. Other questions.....................						

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
II. COTTON AND OTHER FIBER CROPS........			20	4		24
A. Cotton...............................			20	4		24
1. Production...........................			19	4		23
a. Seedbed preparation and planting..						
b. Selection and use of improved varieties and strains...........				2		2
c. Use of fertilizers and lime.......			2			2
d. Harvesting, storing and curing....				2		2
e. Efficient work methods............						
f. Other questions...................			17			17
2. Farm marketing......................			1			1
a. Preparation for market............			1			1
b. Commodity outlook and market information......................						
c. Arranging to sell and selling.....						
d. Other questions...................						
B. Other Fiber Crops....................						
1. Production...........................						
a. Seedbed preparation and planting..						
b. Selection and use of improved varieties and strains...........						
c. Use of fertilizers and lime.......						
d. Harvesting, storing and curing....						
e. Efficient work methods............						
f. Other questions...................						
2. Farm marketing......................						
a. Preparation for market............						
b. Commodity outlook and market information......................						
c. Arranging to sell and selling.....						
d. Other questions...................						
III. OTHER CROPS.......................	173	23	68	43	29	336
A. Hay and Other Forage, Pasture, Range	11	8	26	18	2	65
1. Production...........................	11	8	26	18	2	65
a. Seedbed preparation and planting..			8	6		14
b. Selection and use of improved varieties and strains...........	1		1	2		4
c. Use of fertilizers and lime.......		1	3	1		5
d. Harvesting, storing and curing....		4		1	1	6
e. Efficient work methods............						
f. Other questions...................	10	3	14	8	1	36
2. Farm marketing......................						
a. Preparation for market............						
b. Commodity outlook and market information......................						
c. Arranging to sell and selling.....						
d. Other questions...................						
B. Tobacco.............................	6					6
1. Production...........................	4					4
a. Seedbed preparation and planting..						
b. Selection and use of improved varieties and strains...........						
c. Use of fertilizers and lime.......						
d. Harvesting, storing and curing....						

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
e. Efficient work methods.............						
f. Other questions....................	4					4
2. Farm marketing......................	2					2
a. Preparation for market.............						
b. Commodity outlook and market information.......................	2					2
c. Arranging to sell and selling......						
d. Other questions....................						
C. Oil and Sugar Crops.................			3			3
1. Production.........................			3			3
a. Seedbed preparation and planting...						
b. Selection and use of improved varieties and strains...........			1			1
c. Use of fertilizers and lime........						
d. Harvesting, storing and curing.....			1			1
e. Efficient work methods.............						
f. Other questions....................			1			1
2. Farm marketing......................			1			1
a. Preparation for market.............						
b. Commodity outlook and market · information......................						
c. Arranging to sell and selling......						
d. Other questions....................						
D. Fruits and Nuts.....................	58	4	9	3	10	84
1. Production.........................	45	4	8	3	10	70
a. Seedbed preparation and planting...	1	1	2	2		6
b. Selection and use of improved varieties and strains...........					3	3
c. Use of fertilizers and lime........	4	1				5
d. Harvesting, storing and curing.....	2					2
e. Efficient work methods.............		2				2
f. Other questions....................	38		6	1	7	52
2. Farm marketing......................	13		1			14
a. Preparation for market.............						
b. Commodity outlook and market information......................	10		1			11
c. Arranging to sell and selling......	3					3
d. Other questions....................						
E. Vegetables, including Potatoes & Herbs..............................	45	5	22	9	9	90
1. Production.........................	30	1	21	9	8	69
a. Seedbed preparation and planting...						
b. Selection and use of improved varieties and strains...........	2	1	2	2	1	8
c. Use of fertilizers and lime........	6			1		7
d. Harvesting, storing and curing.....			1			1
e. Efficient work methods.............						
f. Other questions....................	22		18	6	7	53
2. Farm marketing......................	15	4	1		1	21
a. Preparation for market.............	5				1	6
b. Commodity outlook and market information......................	6	4	1			11
c. Arranging to sell and selling	4					4
d. Other questions....................						

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
F. Flowers, Ornamental Shrubs and Shade Trees........................,......	44	3	2		1	50
1. Production..........................	36	1	2		1	40
a. Seedbed preparation and planting...						
b. Selection and use of improved varieties and strains............	1					1
c. Use of fertilizers and lime........	3					3
d. Harvesting, storing and curing.....						
e. Efficient work methods.............	3				1	4
f. Other questions....................	29	1	2			32
2. Farm marketing.......................	8	2				10
a. Preparation for market.............						
b. Commodity outlook and market information......................	8	2				10
c. Arranging to sell and selling......						
d. Other questions....................						
G. Popcorn..............................						
1. Production..........................						
a. Seedbed preparation and planting...						
b. Selection and use of improved varieties and strains............						
c. Use of fertilizers and lime........						
d. Harvesting, storing and curing.....						
e. Efficient work methods.............						
f. Other questions....................						
2. Farm marketing.......................						
a. Preparation for market.............						
b. Commodity outlook and market information......................						
c. Arranging to sell and selling......						
d. Other questions....................						
H. Crops in General....................	9	3	6	13	7	38
1. Production..........................	8	1	5	12	6	32
a. Seedbed preparation and planting...				2		2
b. Selection and use of improved varieties and strains............		1		5	2	8
c. Use of fertilizers and lime........				3		3
d. Harvesting, storing and curing.....						
e. Efficient work methods.............						
f. Other questions....................	8		5	2	4	19
2. Farm marketing.......................	1	2	1	1	1	6
a. Preparation for market.............	1	2			1	4
b. Commodity outlook and market information......................			1	1		2
c. Arranging to sell and selling......						
d. Other questions....................						
IV. LIVESTOCK...........................	150	44	107	49	55	405
A. Dairy Animals and Products..........	51	12	20	12	22	117
1. Production..........................	32	9	17	12	22	92
a. Selection and breeding.............	3	5	6	4	2	20
b. Feeding............................	7		2		2	11
c. Efficient work methods.............	3					3
d. Labor, housing and management......	3	4			1	8
e. Other questions....................	16		9	8	17	50

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
2. Farm marketing......................	19	3	3			25
a. Preparation for market.............	11	1				12
b. Commodity outlook and market						
information......................	8	2	3			13
c. Arranging to sell and selling......						
d. Other questions....................						
B. Poultry and Products.................	68	8	32	13	12	133
1. Production..........................	49	4	31	9	11	104
a. Selection and breeding.............	2	2	7	2		13
b. Feeding............................	1					1
c. Efficient work methods.............	1					1
d. Labor, housing and management......	6	1	7	2	1	17
e. Other questions....................	39	1	17	5	10	72
2. Farm marketing.....................	19	4	1	4	1	29
a. Preparation for market.............	4	3		4		11
b. Commodity outlook and market						
information......................	13	1	1			15
c. Arranging to sell and selling.......	2					2
d. Other questions....................					1	1
C. Beef Cattle..........................	3	7	16	7	8	41
1. Production..........................	3	5	14	7	7	36
a. Selection and breeding.............		2	5	4	1	12
b. Feeding............................	1	3	2		2	8
c. Efficient work methods.............						
d. Labor, housing and management......	1			1		2
e. Other questions....................	1		7	2	4	14
2. Farm marketing.....................		2	2		1	5
a. Preparation for market.............		1				1
b. Commodity outlook and market						
information......................		1	2		1	4
c. Arranging to sell and selling......						
d. Other questions....................						
D. Sheep, Goats and Products............	12	2	10	1	1	26
1. Production..........................	9	2	7	1	1	20
a. Selection and breeding.............		2	2			4
b. Feeding............................	1					1
c. Efficient work methods.............						
d. Labor, housing and management......	3			1		4
e. Other questions....................	5		5		1	11
2. Farm marketing.....................	3		3			6
a. Preparation for market.............						
b. Commodity outlook and market						
information......................	3		3			6
c. Arranging to sell and selling......						
d. Other questions....................						
E. Swine................................	7	5	15	4	1	32
1. Production..........................	6	1	15	4	1	27
a. Selection and breeding.............		1	4	2		7
b. Feeding............................	1		3			4
c. Efficient work methods.............	1					1
d. Labor, housing, and management.....	2					2
e. Other questions....................	2		8	2	1	13
2. Farm marketing.....................	1	4				5
a. Preparation for market.............		1				1
b. Commodity outlook and market						
information......................	1	3				4

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
c. Arranging to sell and selling......						
d. Other questions.....................						
F. Other Livestock and Products.........	5				5	10
1. Production...........................	5				5	10
a. Selection and breeding.............						
b. Feeding.............................	1					1
c. Efficient work methods.............						
d. Labor, housing and management......	1					1
e. Other questions....................	3				5	8
2. Farm marketing.....................						
a. Preparation for market.............						
b. Commodity outlook and market information........................						
c. Arranging to sell and selling......						
d. Other questions....................						
G. Livestock in General.................	4	10	14	12	6	46
1. Production...........................	3	2	13	10	6	34
a. Selection and breeding.............			1	3	1	5
b. Feeding.............................	2	1	1	1	2	7
c. Efficient work methods.............		1				1
d. Labor, housing and management......						
e. Other questions....................	1		11	6	3	21
2. Farm marketing.....................	1	8	1	2		12
a. Preparation for market.............		4		2		6
b. Commodity outlook and market information........................	1	4	1			6
c. Arranging to sell and selling......						
d. Other questions....................						
V. INSECTS, DISEASES AND PARASITES OF PLANTS AND ANIMALS, NEMATODES, WEEDS, RODENTS AND NOXIOUS WILDLIFE.	53	27	31	21	19	151
A. Insects...............................	27	8	13	13	3	64
1. Beekeeping, apiculture...............		2				2
2. Beneficial insects...................			2	2		4
3. Insect identification and general insect problems.....................	5	1	1	2	1	10
4. Insects affecting small grains......						
a. Wheat.............................						
b. Oats..............................						
c. Barley............................						
d. Rye...............................						
e. Rice..............................						
5. Insects affecting corn and sorghums.						
6. Insects affecting forage crops......	2	1		1		4
a. Alfalfa...........................				1		1
b. Clovers...........................						
c. Other legumes.....................						
d. Pasture, range and other forage plants...........................	2	1				3
7. Insects affecting cotton and other fiber crops.......................			3	2		5
8. Insects affecting tobacco..........						

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
9. Insects affecting fruit crops[1]......	9/9	-/	1/1	1/	1/1	12/11
a. Stone fruits........................						
(1) Peaches...........................						
(2) Cherries..........................						
(3) Apricots..........................						
(4) Plums.............................						
(5) Other.............................						
b. Pome fruits........................						
(1) Apples............................						
(2) Pears.............................						
(3) Other.............................						
c. Citrus fruits......................						
d. Berries............................						
(1) Raspberries.......................						
(2) Blackberries......................						
(3) Strawberries......................						
(4) Other berries.....................						
e. Grapes.............................						
f. Nut crops..........................			1			1
10. Insects affecting man.............						
a. Mosquitoes, gnats..................						
b. Flies..............................						
c. Fleas..............................						
d. Lice...............................						
e. Ticks..............................						
f. Chiggers...........................						
g. Other..............................						
11. Insects affecting households[1]......	1/1	-/	-/	-/	-/	1/1
a. Roaches, ants, earwigs.............						
b. Fabric pests.......................						
c. Pantry pests.......................						
d. Bedbugs............................						
e. Fleas..............................						
f. Termites, other woodworking insects						
g. Other..............................						
12. Insects affecting animals[1].........	-/	-/	5/	1/1	1/1	7/2
a. Horses.............................						
b. Cattle.............................			2			2
c. Sheep, goats.......................			1			1
d. Swine..............................			2			2
e. Poultry............................						
f. Other..............................						
13. Insects affecting truck and garden crops.............................	8	1	1	2		12
a. General garden pests...............	8	1	1	2		12
b. Peas and beans.....................						
c. Cucumbers..........................						
d. Potatoes...........................						
e. Sweetpotatoes......................						
f. Tomatoes, peppers, eggplant........						
g. Onions.............................						
h. Cabbage and related plants.........						
i. Sweet corn.........................						
j. Other..............................						

See footnotes at end of table.

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
14. Insects affecting ornamental and nursery plants....................		1				1
15. Insects affecting flower garden and greenhouse plants............	2					2
16. Forest and shade tree insects......						
17. Insects affecting stored grain.....				1		1
18. Insecticides and insect control equipment........................		2		1		3
B. Plant Diseases[1].......................	-/	7/4	-/	1/	1/	9/4
1. Diseases of small grains............						
a. Wheat..........................						
b. Oats...........................						
c. Barley.........................						
d. Rye............................						
e. Rice...........................						
2. Diseases of corn and sorghums.......						
3. Diseases of forage crops............		1				1
a. Alfalfa........................						
b. Clover.........................						
c. Pasture, range and other forage plants.........................		1				1
4. Diseases of cotton and other fiber plants............................				1		1
5. Diseases of tobacco.................						
6. Diseases of fruits and nuts[1]........	-/	-/	-/	-/	1/1	1/1
a. Stone fruits...................						
(1) Peaches...................						
(2) Cherries..................						
(3) Apricots..................						
(4) Plums.....................						
(5) Other.....................						
b. Pome fruits....................						
(1) Apples....................						
(2) Pears.....................						
(3) Other.....................						
c. Berries........................						
(1) Raspberries...............						
(2) Blackberries..............						
(3) Strawberries..............						
(4) Other berries.............						
7. Diseases of vegetable and garden crops[1]...........................	-/	1/1	-/	-/	-/	1/1
a. Peas and beans.................						
b. Cucumbers......................						
c. Potatoes.......................						
d. Sweetpotatoes..................						
e. Tomatoes, peppers, eggplant....						
f. Onions.........................						
g. Cabbage and related plants.....						
h. Sweet corn.....................						
i. Other..........................						
8. Diseases of ornamentals and nursery plants............................		1				1
9. Diseases of flower garden and greenhouse plants................						

See footnotes at end of table.

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
10. Diseases of forest and shade trees.						
11. Other plant diseases.................						
12. Fungicides and fungicide application equipment..................						
C. Animal Diseases and Parasites........	16	9	15	3	2	45
1. Diseases............................	16	8	10	1	2	37
a. Bacterial..........................						
b. Mycotic...........................						
c. Non-infectious.....................						
d. Viral.............................						
e. Rickettsial........................						
f. Nutritional deficiencies............						
g. Other.............................	16	8	10	1	2	37
2. Parasites...........................		1	5	2		8
a. Helminth..........................		1	5	2		8
(1) Nemahelminthes....................						
(2) Platyhelminthes...................						
(3) Other............................		1	5	2		8
D. Nematodes............................						
E. Weeds................................	9	3	3	4	12	31
1. Small grains........................						
a. Wheat.............................						
b. Oats..............................						
c. Barley............................						
d. Rye...............................						
e. Rice..............................						
f. Other.............................						
2. Corn or sorghums....................			1			1
3. Forage crops........................	1	1	1			3
a. Alfalfa...........................						
b. Clovers...........................						
c. Other legume crops.................	1					1
d. Pasture, range or other forage crops..............................		1	1			2
4. Cotton or other fiber crops.........						
5. Tobacco.............................						
6. Fruit and nut crops.................	1				2	3
7. Garden crops........................	4					4
a. General garden weeds...............	4					4
b. Peas and beans.....................						
c. Cucumbers..........................						
d. Potatoes...........................						
e. Sweetpotatoes......................						
f. Tomatoes, peppers, eggplant........						
g. Onions............................						
h. Cabbage and related plants.........						
i. Sweet corn........................						
j. Other truck and garden crops.......						
8. Ornamental and nursery plantings....						
9. Flower gardens and greenhouses......	1					1
10. Forests.............................						
11. Lawns...............................						
12. Roadsides, ditch banks..............				1	1	2
13. Aquatic weeds.......................					1	1
14. Herbicides and herbicide applicators	2	2	1	3	3	16

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
F. Rodents.............................	1				1	2
1. Rats...............................						
2. Mice...............................	1				1	2
3. Ground squirrels...................						
4. Other..............................						
G. Noxious Wildlife....................						
1. Mammal.............................						
2. Birds..............................						
3. Other..............................						
VI. MARKETING, DISTRIBUTION AND FARM AND HOME SERVICE ORGANIZATIONS.........	8	22	3	4	1	38
A. Marketing and Purchasing Cooperatives						
1. Organizational questions...........						
2. Financial..........................						
3. Operational........................						
4. Public relations and membership.....						
B. Farm and Home Service Cooperatives...						
1. Organizational questions...........						
2. Financial..........................						
3. Operational........................						
4. Public relations and membership.....						
C. Marketing Products Through Roadside or Other Farm Retail Markets[1]......	3/ 3	2/ 1	1/	-/	-/	6/ 4
1. Agricultural products..............		1				1
2. Home products (arts, crafts, etc.)..			1			1
D. Other Questions.....................	5	20	2	4	1	32
VII. SOIL AND WATER CONSERVATION AND MANAGEMENT, FORESTRY AND WILDLIFE....	26	15	40	40	15	136
A. Soil Management.....................	4	5	12	20	6	47
1. Land use...........................		2	3			5
2. Soil testing.......................	1		5	6	2	14
3. Use of soil amendments (lime, sulfur, gypsum, trace elements, etc.)		1		1		2
4. Use of fertilizers (commercial and barnyard).........................	1	2		2	2	7
5. Production of soil-improvement crops			1	3		4
6. Crop rotations.....................			2	2		4
7. Land clearing......................						
8. Other questions....................	2		1	6	2	11
B. Water Management....................	4	5	6	20	4	39
1. Contour and strip cropping.........						
2. Terracing..........................			1		1	2
3. Grass waterways....................						
4. Water supply, storage and distribution...............................						
5. Drainage...........................						
6. Irrigation.........................	4	5	5	20	3	37
7. Other questions....................						
C. Farm Forestry.......................	16	2	15		5	38
1. Planting forest trees (windbreaks, shelterbelts, erosion control, Christmas trees, etc.).............	5		5			10

See footnotes at end of table.

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
2. Timber-stand improvement (thinning, weeding and pruning forest and woodland trees)..................	1		3			4
3. Timber-harvesting (includes selective and other recommended cutting for forest products)..............			1			1
4. Estimating and appraising..........	1					1
5. Production of maple sirup or naval stores..........................						
6. Treating wood products with preservatives (fence posts and building timbers).......................						
7. Marketing of forest products (includes markets and timber-selling)	3		1			4
8. Fire prevention....................			2			2
9. Woods diseases.....................		2				2
10. Woods insects.....................						
11. Other questions...................	6		3		5	14
D. Wildlife..........................	1		5			6
1. Construction and management of ponds for fish....................			4			4
2. Making food and cover plantings for wildlife........................						
3. Protection of wildlife areas from fire or livestock.................						
4. Other questions....................	1		1			2
E. General Nature Study and Conservation	1	3	2			6
VIII. PLANNING AND MANAGEMENT OF THE FARM BUSINESS....................	20	22	4	8	9	63
A. Keeping and Analyzing Farm Records...	1	1		1		3
B. Developing an Overall Farm Plan......	3	11	3	2	7	26
C. Making Needed Annual Plans...........	1			1		2
D. Developing Supplemental Sources of Income.............................	1		1			2
E. Obtaining and Using Credit...........		1		2	1	4
F. Buying or Renting a Farm.............						
G. Legal Aspects of the Farm Business...		2				2
1. Leases..............................		2				2
2. Workmen's compensation and insurance						
3. Laws, regulations, inspections......						
H. Income-Tax Accounting, Social Security and Related Questions.......	8	4		2	1	15
I. Other Questions.....................	6	3				9
IX. FARM BUILDINGS AND MECHANICAL EQUIPMENT...............................	17	4	20	8	2	51
A. Arrangement of Farm Building Layout..				1		1
B. Construction of Farm Buildings.......	5	3	7	1	2	18
1. Dairy buildings.....................			2			2
2. Beef buildings......................						
3. Sheep buildings.....................						
4. Swine buildings.....................		1	1			2
5. Poultry buildings...................	1	1				2
6. Machinery sheds.....................						

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
7. Crops storage and processing.......	2		3			5
8. Other farm buildings...............	2			1		3
9. Other questions...............'......		1	1		2	4
C. Remodeling or Repairing Farm Buildings.........................	1					1
1. Dairy buildings.....................						
2. Beef buildings.....................						
3. Sheep buildings....................						
4. Swine buildings....................						
5. Poultry buildings..................						
6. Machinery sheds....................						
7. Crops storage and processing.......						
8. Other farm buildings...............	1					1
9. Other questions....................						
D. Selection or Construction of Farm-Building Equipment................	6	1	2	1		10
1. Livestock equipment................	2		2	1		5
2. Crops handling, grinding and testing..........................	1					1
3. Refrigeration, ventilating, drying and heating.....................	3	1				4
4. Other questions....................						
E. Mechanical Equipment (Used Outside Farm Buildings).....................	3		10	5		18
1. Selection of farm mechanical equipment................................			3	1		4
2. Developing labor-saving devices and equipment...........................			1			1
3. Use, care and repair of farm mechanical equipment..............	3		5	4		12
4. Other questions....................			1			1
F. Electrical Equipment for Income-Producing Purposes................	2		1			3
G. Other Engineering...................						
1. Roads, bridges and culverts........						
2. Gates and fences...................						
3. Other questions....................						
X. HOUSE AND SURROUNDINGS, FURNISHINGS AND EQUIPMENT......................	39	15	28	16	16	114
A. House................................	3	6	9	2	7	27
1. Building a new house...............		2		1	2	5
2. Remodeling or repairing the house..		1	3			4
3. Improving kitchen or laundry.......	1	1	1		2	5
4. Improving storage space............					2	2
5. Water and sewage systems...........						
6. Heating and cooling systems........						
7. Electrical systems.................		2	4	1	1	8
8. Other questions....................	2		1			3
B. Landscaping Plans for Home Grounds (Also Industrial).................	23	2	9	5	3	42
C. Home Equipment (Other Than Sewing Equipment).........................	3		3	1	3	10

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
1. Selection, use and care.............	3		3	1	3	10
a. Ranges...........................						
b. Washers, ironers, and dryers.......			1		1	2
c. Refrigerators and freezers.........						
d. Cleaning equipment.................						
e. Utensils...........................					1	1
f. Other questions.....................	3		2	1	1	7
D. Home Furnishings......................	10	7	7	8	3	35
1. Selection, use and care.............	3	5	1	3		12
a. Furniture..........................		4				4
b. Rugs...............................						
c. Slipcovers.........................	1					1
d. Window accessories.................	1			1		2
e. Lighting equipment.................	1	1				2
f. Other questions.....................			1	2		3
2. Repair and reconditioning..........	3		1			4
a. Refinishing furniture..............	3		1			4
b. Reseating chairs...................						
c. Upholstery.........................						
d. Accessories........................						
3. Other questions.....................	4	2	5	5	3	19
a. Furniture arrangement and acces- sories............................			1		1	2
b. Color schemes and wall finishes....	3		1	1	1	6
c. Floor finishes.....................						
d. Other questions....................	1	2	3	4	1	11
XI. HOME MANAGEMENT AND FAMILY ECONOMICS.	22	8	2	5	3	40
A. Home Management......................	7	3	1	2		13
1. General management..................	2	2	1			5
2. Improving housekeeping methods......	5	1		2		8
3. Family laundering and stain removal.						
4. Other questions.....................						
B. Family Economics.....................	15	5	1	3	3	27
1. Outlook information.................						
2. Family financial planning...........	15	5	1	2	2	25
3. Keeping and analyzing home records..				1		1
4. Family legal matters................						
5. Other questions.....................					1	1
XII. CLOTHING............................	27	6	11	17	16	77
A. Selecting and Buying Clothing........	9	4	2	1	2	18
1. General selection...................	6	2	2		1	11
2. Ready-made clothes..................		1				1
3. Fabrics for clothing construction...	3	1		1	1	6
4. Other questions.....................						
B. Care and Mending of Clothing.........	4		2	1	1	8
1. Care................................	3		1	1		5
2. Mending.............................	1				1	2
3. Other questions.....................			1			1
C. Clothing Construction................	14	2	6	13	13	48
1. General construction................	5	2	3	8	3	21
2. Pattern alteration and fitting......					3	3
3. Dress forms.........................					1	1
4. Tailoring...........................	5			1		6

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
5. Remodeling...........................					1	1
6. Other questions......................	4		3	4	5	16
D. Sewing Equipment and Sewing Centers..			1			1
1. Selection, use and care.............			1			1
a. Sewing machines and supplies.......						
b. Using the sewing machine..........			1			1
c. Other sewing equipment.............						
d. Sewing centers.....................						
e. Other questions....................						
E. Grooming and Posture (Personal Appearance)........................				2		2
XIII. FOODS AND NUTRITION................	30	19	25	20	15	109
A. Food Preparation (How to Cook).......	7	1	5	4	1	18
1. Meats...............................						
2. Vegetables..........................						
3. Desserts............................						
4. Breads and rolls....................				1	1	2
5. Cereals.............................						
6. Salads..............................			1			1
7. Casseroles and other one-dish meals.						
8. Outdoor cooking.....................		1		1		2
9. Other...............................	7		4	2		13
B. Meal Planning (By Meal or Day).......	8	4	4	1	2	19
1. Family meals........................	7	4	4	1	2	18
2. Group meals.........................	1					1
C. Food Preservation....................	5		8	9	2	24
1. Canning.............................			1	6		7
a. Meats..............................						
b. Fruits.............................						
c. Vegetables.........................						
d. Fair canning.......................						
e. General...........................			1	3		4
f. Other.............................				3		3
2. Freezing............................			4		2	6
a. Meats..............................						
b. Fruits.............................						
c. Vegetables.........................						
d. Cooked foods.......................						
e. General...........................			4		2	6
f. Other.............................						
3. Pickling............................						
4. Preserving and jelling..............						
5. Other...............................						
6. General.............................	5		3	3		11
D. Food Spoilage........................						
1. Canned..............................						
2. Frozen..............................						
3. Other...............................						
E. Nutrition[1].........................	3/	6/	2/	1/	4/ 2	16/ 2
1. Use of food in body (4 Foods Groups)		5		1		6
2. Improving diets.....................			1		2	3
3. Special diets.......................	3	1	1			5
a. Weight control.....................	3					3
b. Diabetes...........................						

See footnotes at end of table.

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
c. High blood pressure................						
d. Other............................		1	1			2
F. Food Habits........................		2	1		1	4
G. Food Value and Composition..........		1		1		2
H. Food Selection and Buying...........	3	3		1	4	11
1. Meats............................	1				1	2
2. Vegetables.......................						
3. Fruits...........................						
4. General..........................	2	3			4	9
5. Other............................						
I. Family Food Supply (Month or Year)...	3					3
J. Miscellaneous Foods Questions........	1	2	5	3	1	12
XIV. HEALTH, FAMILY LIFE AND SAFETY......	31	10	27	31	9	108
A. Health.............................			15	17	1	33
1. Sanitation practices and facilities.				2		2
2. First aid and home nursing..........				2	1	3
3. Health education leading to physical examination by a physician........			2			2
4. Dental health education.............			1			1
5. Mental health education.............			1			1
6. General health education............			6	10		16
7. Communicable diseases...............						
8. Other questions.....................			5	3		8
B. Family life.........................	27	8	9	9	8	61
1. Child development and guidance......	6			1	1	8
2. Play clothing and equipment........						
3. Understanding roles of family members and strengthening family relationships......................	6	5		1	2	14
4. Individual adjustments and personality development.............	4	2		1		7
5. Hospitality (includes etiquette and party planning)...............	6	1	3	1	3	14
6. Indoor home recreation (includes handicrafts)......................	4		5	2	1	12
7. Outdoor home recreation (includes handicrafts)......................	1		1	3		5
8. Other questions.....................					1	1
C. Safety..............................	4	2	3	5		14
1. Fire prevention (farm and home).....		1				1
2. Accident prevention (farm and home).						
3. Accident prevention (away from home)			1	2		3
4. Other questions.....................	4	1	2	3		10
XV. COMMUNITY DEVELOPMENT AND PUBLIC AFFAIRS............................	52	13	118	20	70	273
A. Understanding of Citizenship Responsibilities and Functions of Government........................	1	2				3
B. County and Community Improvement Clubs, Councils, Committees for Program Planning and Special Purposes[1]	19/10	1/ 1	91/20	14/ 2	55/ 9	180/42
1. 4-H Club questions..................	9		71	12	46	138

See footnotes at end of table.

TABLE 19.--Continued

Classification	Mass.	Mich.	Miss.	Okla.	Wash.	Total
C. Community Problems.....................	14	8	8	2	3	35
1. General..............................	1					1
2. Health facilities, services and programs..........................	2		3	1		6
3. Schools..............................		1				1
4. Churches.............................						
5. Town-country relations...............					1	1
6. Libraries...........................					1	1
7. Roads................................	1					1
8. Telephones..........................						
9. Community centers....................	1		5			6
10. Recreation programs and facilities..	5			1		6
11. Community beautification............	2					2
12. Other questions.....................	2	7			1	10
D. Regional or Area Development Work....	9	2	17	3	12	43
E. National Programs and Proposals Affecting Agriculture and Rural Life..................................	9·		2	1		12
F. World Affairs.........................						
XVI. MISCELLANEOUS........................	6					6
T O T A L S......................	654	228	530	294	264	1970

[1] The number on the left edge of the columns is the total for the category; the number on the right edge of the columns is the number of general items not fitting under any of the specific headings.

CHAPTER V

METHOD 5: COUNTY EXTENSION PROGRAM PROJECTION REPORTS

What do long-range plans show?

Extension program projection reports are another source of data that may help determine publications needs in advance of the public's demand for information. These projection reports set forth the goals and the long-range extension educational program for a county as developed by local leaders and extension workers.

County program projection reports are different than annual plans of work. Annual plans of work set forth what will be done in one year toward achieving long-range goals established through program projection. Program projection reports presumably show anticipated needs for the coming 3, 5, or even 10 years.

Our committee included program projection reports as one of the methods studied to see what help it would provide in determining publications needs.

PROCEDURE

We recorded each item contained in the program projection reports on a 3 x 5 card, the same as in the other methods tested. The cards were sorted and the data tabulated using the standard classification scheme for all methods.

At the time of the study, program projection reports were available from only one of the five cooperating States, Mississippi. Thus we could compare the program projection method with other methods only in the four Mississippi counties.

SUMMARY OF DATA

1. Extension program projection reports from the four Mississippi counties contained 466 items on informational needs.

2. More than 1/5 (22.3%) of the items were about livestock needs.

3. Less than 1/5 (18.7%) of the items were about crops needs.

4. About 1/9 (11.5%) of the items were about soil and water conservation and management, forestry and wildlife needs.

5. About 1/11 (9.2%) of the items were about foods and nutrition needs.

6. The items in the program projection reports indicated only general areas of needs and were not specific enough to indicate publications content. Apparently both program projection reports and annual plans of work are quite general and not specific.

ANALYSIS OF DATA

The method most nearly like the analysis of program projection reports is the analysis of Extension annual plans of work. The two categories with the largest percentage (crops and livestock) were about the same for program projection reports and for annual plans of work. There was a higher percentage of items on clothing, foods and nutrition, and soil and water conservation in the program projection reports than in the annual plans of work. Table 20 shows a comparison of the relative need for different kinds of information as found by the two methods.

TABLE 20.--COMPARISON OF ITEMS IN COUNTY ANNUAL PLANS OF WORK AND COUNTY PROGRAMS PROJECTION REPORTS

(Four Mississippi Counties)

Items	County plans		Program projection plans	
	Number	%	Number	%
Community development and public affairs.	118	22.3	41	8.8
Crops......................................	114	21.4	87	18.7
Livestock.................................	107	20.2	104	22.3
Soil and water conservation and management, forestry and wildlife.............	40	7.6	54	11.5
Insects, diseases, etc....................	31	5.8	21	4.5
House and surroundings, furnishings and equipment..............................	28	5.3	31	6.7
Health, family life and safety...........	27	5.1	24	5.1
Foods and nutrition......................	25	4.7	43	9.2
Farm buildings and mechanical equipment..	20	3.7	9	1.9
Clothing.................................	11	2.1	31	6.7
Planning and management of the farm business......................................	4	.8	4	.9
Marketing, distribution, and farm and home service organizations..............	3	.6	4	.9
Home management and family economics.....	2	.4	6	1.3
Miscellaneous.............................	0	.0	7	1.5
Total.....................................	530	100.0	466	100.0

LIMITATIONS

The data from four counties do not provide an adequate basis for comparing this method with the other methods tested. When program projection reports are more generally available, it may be desirable to check this source of data for determining publications needs.

CHAPTER VI

METHOD 6: ARS PUBLICATIONS THAT STATE EXTENSION SPECIALISTS SAY ARE NEEDED

''What popular publications do State extension specialists need from the Agricultural Research Service, USDA ?''

Method 6 involves a study made by the Agricultural Research Service, in cooperation with Federal and State Extension Service subject-matter specialists, to get answers to this question.* This method furnished data on ARS popular publication needs as seen by State Extension Specialists.

A popular publication should be directed to a specific audience and contain pertinent information presented so that the audience can readily understand it. ''Pertinent'' here means ''helpful to the reader in a practical sense.'' Information should be pertinent in two ways: It should answer the readers questions; and it should cover aspects of the subject that the reader cannot ask about--because they are new to him.

When the list of titles of USDA popular publications is compared with the agricultural and home economics subjects that could properly be treated in popular publications, many gaps in coverage are apparent.

The question of how to determine Extension's need for certain USDA popular publications was considered in 1952. This question has three parts: (1) How do existing publications compare in usefulness to Extension? (2) What additional publications are needed by Extension? (3) What is the extent of the need for each of the publications? To measure usefulness and need, ARS asked for the views of State extension specialists through a survey with Federal Extension specialists which began in 1953.

This survey, and others, were considered inadequate for planning popular ARS publications. Recommendation 6 of the Department Publications Review Committee provided means for considering additional methods of obtaining data.

PROCEDURE USED TO OBTAIN DATA

Lists of titles of existing and in-process ARS popular publications were prepared by ARS and sent through Federal Extension specialists to their counterparts in the States and Puerto Rico. The State specialists, who in themselves author many publications, were asked to:

1. Rate each title high, medium, low, or ''no need'' as to need for the publications in his State.

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*Hall, David G. ''Need for ARS-USDA Popular Publications by State Extension Services.'' U. S. Dept. Agr., Agr. Res. Serv., Info. Div., Unnumb. Pub., Washington, D. C. 1959.

2. Study the contents of each publication in relation to questions that the public asks and indicate the questions that should have been, but were not, answered in the publication.

3. Suggest titles of new publications that ARS should consider issuing.

The specialists' adjective ratings were converted to numerical values as follows:

High need was assigned a value of 10, medium need a value of 5, low need a value of 1, and "no need" a value of 0. These values were added for each publication and the total was divided by the number of State specialists who expressed any need for the publication. The result was a rating ranging from 10 to 0.

For suggested titles for new publications, this same process was repeated. The new titles then were listed in the order of their ratings. The percentage of States expressing a need was tabulated for each title.

All titles, existing and proposed, then, were typed on 3 x 5 cards. The number of States indicating need for a publication was added to each card. The cards then were classified by use of the classification sheet the same as for other methods studied.

The ARS has made little attempt to determine effect of "no need" ratings, since such ratings weight the data adversely against both the number of States indicating need for a publication and the final rating for the publication. Specialists rarely indicate "no need," even when the States have their own publications; instead, they usually indicate low need. A reply of "no need" often is followed by the note "Preparing one of our own," or something similar.

USES AND LIMITATIONS OF DATA

This survey covered Extension's need for information only in subjects for which ARS is responsible. It does not include such subjects as forestry and marketing. The data were analyzed on a regional or national, not State, publication-needs basis. Deviations in data obtained by Methods 1 and 6 will not be fully understood until Method 1 is national in scope and more experience has been gained with both methods.

Method 6 provides:

1. Data which helps take individual ARS opinion and guess out of the question, "What are the Extension needs for ARS-USDA popular publications?"

2. Evidence which helps subject matter people identify (a) subjects that should be treated in new popular publications and (b) popular publications that should have priority.

3. The "what-people-should-know" element as viewed by State specialists and ARS authors in publication planning.

ARS uses the data furnished by Method 6 in helping to decide whether or not a publication should be produced, continued, or dropped, in this way: Publications rated at less than 5.0 by specialists in fewer than 50% of the States in which the subject matter is appropriate, and moving from stock at rates fewer than 5,000 copies in a full-year basis, are considered suspect from the standpoint of need. The ARS Publications Committee reviews these publications and decides whether the publications should be continued in the popular (free) series, prepared for issuance in another series, or dropped.

Method 6 will help the States in this way: States will know that ARS will provide publications rated high by specialists in a majority of States where the subject matter is appropriate. It is unlikely that ARS will produce, revise, or recommend for keeping in

stock publications on low-rated subject matter. Many titles suggested and rated high by specialists cannot be produced by ARS because it does not conduct research in certain subject matter fields. This is true especially in the consumers' education "Selection, use and care" field. Publications covering such subjects might be planned by other federal agencies, States, manufacturers' associations, or other groups.

States could adapt Method 6 to their use by having agents rate the titles of existing and proposed State publications. Agents also could suggest other publications needed. Returns would reflect the combined judgment of the agents.

Limitations: The value of Method 6 is limited seriously because only titles are suggested without subject matter content. It was anticipated that more specific data would be received by asking "What are the questions asked by the public that should be but are not answered in each publication listed?" Some specialists furnished questions but the majority did not. Thus Method 6 indicates subject matter needs, but not the exact contents for each title suggestion. Many authors have definite opinions concerning the type of information that the public needs, but they may know only a few of the questions people ask and want answered in the publication.

ANALYSIS OF DATA

The categories used to tabulate the indications of extension's need for ARS subject matter publications are given in tables 21, 22, and 23. There are, of course, no indications of need in subject-matter areas except those concerning ARS.

TABLE 21.--TABULAR SUMMARY OF STATE EXTENSION SPECIALISTS' INDICATIONS OF NEED
FOR ARS-USDA POPULAR PUBLICATIONS (CLASSIFIED BY MAIN AREAS OF WORK)

Main categories[1]	Indications of need	
	Number	Percent
A. Insects,[2] animal diseases and parasites, plant diseases, weeds, and nematodes..	5,085	17.7
B. Crops..	4,961	16.5
C. House and surroundings, furnishings and equipment.............	4,658	16.2
D. Farm buildings and mechanical equipment.......................	3,434	11.9
E. Livestock..	2,757	9.6
F. Foods and nutrition..	2,728	9.5
G. Soil and water conservation and management.....................	1,932	6.6
H. Clothing...	1,435	5.0
I. Home management and family economics........................	1,067	3.6
J. Planning and management of the farm business..................	496	1.7
K. Health, family life, and safety................................	353	1.2
L. Community development and public affairs......................	17	.5
	28,923	100.0

Home economics subjects. (House and surroundings, furnishings, and equipment; Foods and nutrition; Clothing; Home management and family economics; and Health, family life, and safety), if grouped under one heading, would become the leading category with 35.5 percent of all indications of extension publications needs.

[1] There were no indications of need for subject matter in the "Marketing" or "Miscellaneous" categories in the classification list used in the other methods studied. The three "Crops" categories were combined.

[2] Indications of need for information concerning forest insects (including termites) effecting forest products, insects affecting stored products (including clothes moths and carpet beetles), and insects affecting certain household products, are omitted.

Subdivisions of main categories[1]	Indications of need, by major subdivisions		Indications of need, by secondary subdivisions	
	Number of specialists times number of titles	Percent of main category	Number of specialists times number of titles	Percent of major subdivision
Main category A (Insects, animal diseases and parasites, plant diseases, nematodes and weeds)				
1. Insects........................	3,012	59		
a. Medical entomology[2]...........			848	27
b. Insect identification and general insect problems......			673	22
c. Garden and truck crop.........			416	14
d. Forage crop insects...........			196	7
e. Fruit crop insects............			156	5
f. Corn and sorghum insects......			151	5
g. Flower garden and green-house plant insects..........			136	4
h. Insecticides and equipment....			126	4
i. Apiculture....................			81	3
j. Cotton and fiber crop.........			62	2
k. Ornamental and nursery plant insects................			56	2
l. Tobacco insects...............			46	2
m. Small grain insects...........			45	2
n. Beneficial insects............			20	1
Subtotal....................	3,012	59	3,012	100
2. Animal diseases and parasites.....	911	18		
a. Diseases......................			828	90
b. Parasites.....................			83	10
Subtotal....................	911	18	911	100
3. Plant diseases.....................	884	17		
a. Vegetable diseases............			186	21
b. Other plant diseases..........			164	19
c. Fruit diseases................			152	17
d. Small grain diseases..........			142	16
e. Flower diseases...............			64	9
f. Forage crop diseases..........			43	5
g. Forest and shade tree diseases......................			37	4
h. Corn and sorghum diseases.....			33	4
i. Ornamental plant diseases.....			30	3
j. Tobacco diseases..............			17	2
k. Cotton and other fiber crop diseases......................			16	2
Subtotal....................	884	17	884	100

See footnotes at end of table.

TABLE 22.--Continued.

Subdivisions of main categories	Indications of need, by major subdivisions		Indications of need, by secondary subdivisions	
	Number of specialists times number of titles	Percent of main category	Number of specialists times number of titles	Percent of major subdivision
Main category A (cont.)				
4. Weeds...........................	177	04	[3] 177	100
5. Nematodes........................	101	02	[3] 101	100
Total, main category A...........	5,085	100	5,085	
Main category B				
(Crops)				
1. Other crops.....................	4,099	83		
a. Vegetables....................			1,139	27.8
b. Hay, forage, etc..............			1,132	27.6
c. Crops in general.............			686	16.4
d. Flowers, ornamentals.........			498	12.1
e. Fruits and nuts..............			446	10.5
f. Oil and sugar................			123	3.0
g. Tobacco......................			49	2.0
h. Popcorn......................			26	.6
Subtotal.................	4,099	83	4,099	100.0
2. Grain crops.....................	788	16		
a. Corn.........................			445	56.5
b. Other grains.................			114	14.6
c. Grain crops in general.......			96	12.3
d. Oats.........................			71	9.0
e. Barley.......................			30	3.8
f. Wheat........................			22	2.5
g. Rye..........................			10	1.3
Subtotal.................	788	16	788	100.0
3. Cotton and other fiber crops.....	74	1		
a. Cotton.......................			56	75.7
b. Other fiber crops............			18	24.3
Subtotal.................	74	1	74	100.0
Total main category B........	4,961	100	4,961	
Main category C				
(House and surroundings, furnishings and equipment)				
1. House...........................	2,611	56		
a. Building a new house.........			543	21
b. Other........................			483	19

See footnotes at end of table.

TABLE 22.--Continued

Subdivisions of main categories	Indications of need, by major subdivisions		Indications of need, by secondary subdivisions	
	Number of specialists times number of titles	Percent of main cate-gory	Number of specialists times number of titles	Percent of major sub-division
Main category C (Cont.)				
c. Electrical systems...........			433	17
d. Heating and cooling systems..			422	16
e. Improving storage space......			391	14
f. Water and sewage systems.....			339	13
Subtotals.................	2,611	56	2,611	100
2. Home furnishings.................	1,067	23	[3] 1,067	100
3. Home equipment...................	706	15	[3] 706	100
4. Landscaping......................	274	6	[3] 274	100
Totals main category C.......	4,658	100	4,658	
Main category D				
(Farm buildings and mechanical equipment)				
1. Selection or construction of farm building equipment.........	1,273	37		
a. Refrigeration, ventilating, drying, and heating.........			450	35
b. Crops handling, grinding and testing.................			426	33
c. Livestock equipment..........			286	23
d. Other........................			110	9
Subtotal..................	1,273	37	1,273	100
2. Construction of farm buildings...	985	29		
a. Other........................			485	49
b. Poultry buildings............			184	19
c. Other farm buildings.........			156	15
d. Dairy buildings..............			95	9
e. Crops storage and processing.			65	8
Subtotal..................	985	29	985	100
3. Mechanical equipment.............	843	25	[3] 843	100
4. Electrical equipment for income-producing purposes........	239	7	[3] 239	100

See footnotes at end of table.

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TABLE 22.--Continued.

Subdivisions of main categories	Indications of need, by major subdivisions		Indications of need, by secondary subdivisions	
	Number of specialists times number of titles	Percent of main category	Number of specialists times number of titles	Percent of major subdivision
Main category D (Cont.)				
5. Other engineering.................	94	02		
a. Gates and fences.............			41	44
b. Other........................			31	33
c. Roads, bridges, culverts.....			22	23
Subtotal...................	94	02	94	100
Total, main category D......	3,434	100	3,434	
Main category E (Livestock)				
1. Poultry..........................	733	26	[3] 733	100
2. Dairy............................	560	21	[3] 560	100
3. Livestock in general.............	377	14	[3] 377	100
4. Sheep and goats..................	330	12	[3] 330	100
5. Other livestock..................	288	10	[3] 288	100
6. Beef cattle......................	263	9	[3] 263	100
7. Swine............................	206	8	[3] 206	100
Total, main category E......	2,757	100	2,757	
Main category F (Foods and nutrition)				
1. Food preparation.................	993	36	[3] 993	100
2. Food preservation................	515	19		
a. Freezing.....................			358	70
b. Canning......................			29	7
c. Other.......................			128	23
Subtotal...................	515	19	515	100
3. Meal planning....................	408	15	[3] 408	100
4. Nutrition........................	105	4	[3] 105	100
5. Food value and composition.......	98	4	[3] 98	100
6. Miscellaneous....................	91	3	[3] 91	100
7. Food habits......................	37	1	[3] 37	100
Total, main category F.....	2,728	100	2,728	

See footnotes at end of table.

TABLE 22.--Continued.

Subdivisions of main categories	Indications of need, by major subdivisions		Indications of need, by secondary subdivisions	
	Number of specialists times number of titles	Percent of main category	Number of specialists times number of titles	Percent of major subdivision
Main category G (Soil and water conservation management)				
1. Water management......................	1,163	60		
a. Irrigation......................			778	69
b. Other..........................			175	15
c. Water supply, storage, and distribution.................			109	09
d. Drainage.......................			101	09
Subtotal..................	1,163	60	1,163	100
2. Soil management....................	769	40		
a. Use of soil amendments (lime, sulfur, gypsum, trace elements etc.)........			262	34
b. Other..........................			170	22
c. Land use.......................			165	21
d. Use of fertilizers............			138	18
e. Land clearing.................			34	05
Subtotal..................	769	40	769	100
Total, main category G.....	1,932	100	1,932	
Main category H (Clothing)				
1. Selecting and buying clothing....	934	66		
a. Ready-made clothes............			522	56
b. Fabrics for clothing construction.................			346	37
c. General selection.............			66	07
Subtotal..................	934	66	934	100
2. Clothing construction............	400	23		
a. General construction.........			193	48
b. Pattern alteration and fitting.....................			137	34
c. Other..........................			70	18
Subtotal..................	400	23	400	100

TABLE 22.--Continued.

Subdivisions of main categories	Indications of need, by major subdivisions		Indications of need, by secondary subdivisions	
	Number of specialists times number of titles	Percent of main category	Number of specialists times number of titles	Percent of major subdivision
Main category H (Cont.)				
3. Care and mending.................	106	7		
a. Care.......................			66	63
b. Mending....................			40	37
Subtotal.................	106	7	106	100
4. Sewing equipment and sewing centers........................	62	4	[3] 62	100
Total, main category H.....	1,435	100	1,435	
Main category I (Home management and family economics)				
1. Home management..................	548	51	[3] 548	100
2. Family economics................	519	49	[3] 519	100
Total, main category I.....	1,067	100	1,067	
Main category J (Planning and management of the farm business)				
1. Developing an overall farm plan..	159	32	[3] 159	100
2. Legal aspects of the farm business.......................	139	28	[3] 139	100
3. Other..........................	88	18	[3] 88	100
4. Keeping and analyzing farm records.......................	69	14	[3] 69	100
5. Buying or renting a farm........	41	8	[3] 41	100
Total, main category J.....	496	100	496	
Main category K (Health, family life, and safety)				
1. Safety..........................	194	55		
a. Fire prevention.............			119	62
b. Other......................			41	21
c. Accident prevention.........			34	17
Subtotal.................	194	55	194	100
2. Family life....................	87	24	[3] 87	100
3. Health (Sanitation practices and facilities)....................	72	21	[3] 72	100
Total, main category K.....	353	100	353	

See footnotes at end of table.

TABLE 22.--Continued.

Subdivisions of main categories	Indications of need, by major subdivisions		Indications of need, by secondary subdivisions	
	Number of specialists times number of titles	Percent of main cate-gory	Number of specialists times number of titles	Percent of major sub-division
Main category L (Community development and public affairs)				
1. Other questions (rural zoning)...	17	100	[3] 17	100
Total, main category L.....	17	100	17	

[1] Main categories are listed in table 21.
[2] Insects affecting man, households and animals.
[3] Major subdivision not further divided.

TABLE 23.--STATE EXTENSION SPECIALISTS' NEEDS FOR ARS-USDA POPULAR PUBLICATIONS

Classified by subjects	Items	Total indications
I. GRAIN CROPS..	37	788
A. Wheat..	2	22
1. Production..	2	22
a. Seedbed preparation and planting.......................		
b. Selection and use of improved varieties and strains......	1	11
c. Use of fertilizers and lime............................		
d. Harvesting, storing and curing.........................		
e. Efficient work methods................................		
f. Other questions.......................................	1	11
2. Farm marketing...		
a. Preparation for market................................		
b. Commodity outlook and market information................		
c. Arranging to sell and selling..........................		
d. Other questions.......................................		
B. Corn..	17	445
1. Production..	17	445
a. Seedbed preparation and planting.......................	3	71
b. Selection and use of improved varieties and strains......	1	32
c. Use of fertilizers and lime............................	2	55
d. Harvesting, storing and curing.........................	5	121
e. Efficient work methods................................	2	72
f. Other questions.......................................	4	94
2. Farm marketing...		
a. Preparation for market................................		
b. Commodity outlook and market information................		
c. Arranging to sell and selling..........................		
d. Other questions.......................................		
C. Oats..	5	71
1. Production..	5	71
a. Seedbed preparation and planting.......................		
b. Selection and use of improved varieties and strains......	3	46
d. Use of fertilizers and lime............................		
e. Efficient work methods................................		
f. Other questions.......................................	2	25
2. Farm marketing...		
a. Preparation for market................................		
b. Commodity outlook of market...........................		
c. Arranging to sell and selling..........................		
d. Other questions.......................................		
D. Barley..	1	30
1. Production..	1	30
a. Seedbed preparation and planting.......................		
b. Selection and use of improved varieties and strains......		
c. Use of fertilizers and lime............................		
d. Harvesting, storing and curing.........................		
e. Efficient work methods................................		
f. Other questions.......................................	1	30
2. Farm marketing...		
a. Preparation for market................................		
b. Commodity outlook and market information................		
c. Arranging to sell and selling..........................		
d. Other questions.......................................		

TABLE 23.--Continued.

Classified by subjects	Items	Total indications
E. Rye..	1	10
1. Production...	1	10
a. Seedbed preparation and planting..........................		
b. Selection and use of improved varieties and strains.......	1	10
d. Use of fertilizers and lime...............................		
e. Efficient work methods....................................		
f. Other questions...		
2. Farm marketing...		
a. Preparation for market....................................		
b. Commodity outlook and market information..................		
c. Arranging to sell and selling.............................		
d. Other questions...		
F. Other Grain (rice, dry peas, beans, etc.)....................	8	114
1. Production...	8	114
a. Seedbed preparation and planting..........................		
b. Selection and use of improved varieties and strains.......		
c. Use of fertilizers and lime...............................		
d. Harvesting, storing and curing............................		
e. Efficient work methods....................................		
f. Other questions...	8	114
2. Farm marketing...		
a. Preparation for market....................................		
b. Commodity outlook and market information..................		
c. Arranging to sell and selling.............................		
d. Other questions...		
G. Grain Crops in General.......................................	3	96
1. Production...	3	96
a. Seedbed preparation and planting..........................		
b. Selection and use of improved varieties and strains.......		
c. Use of fertilizers and lime...............................		
d. Harvesting, storing and curing............................	3	96
e. Efficient work methods....................................		
f. Other questions...		
2. Farm marketing...		
a. Preparation for market....................................		
b. Commodity outlook and market information..................		
c. Arranging to sell and selling.............................		
d. Other questions...		
II. COTTON AND OTHER FIBER CROPS................................	10	74
A. Cotton..	7	56
1. Production...	7	56
a. Seedbed preparation and planting..........................		
b. Selection and use of improved varieties and strains.......		
c. Use of fertilizers and lime...............................		
d. Harvesting, storing and curing............................	5	35
e. Efficient work methods....................................		
f. Other questions...	2	21
2. Farm marketing...		
a. Preparation for market....................................		
b. Commodity outlook and market information..................		
c. Arranging to sell and selling.............................		
d. Other questions...		

TABLE 23.--Continued.

Classified by subjects	Items	Total indications
B. Other Fiber Crops...	3	18
1. Production...	3	18
a. Seedbed preparation and planting.......................		
b. Selection and use of improved varieties and strains......		
c. Use of fertilizers and lime............................		
d. Harvesting, storing and curing.........................		
e. Efficient work methods................................		
f. Other questions.......................................	3	18
2. Farm marketing..		
a. Preparation for market................................		
b. Commodity outlook and market information...............		
c. Arranging to sell and selling..........................		
d. Other questions.......................................		
III. OTHER CROPS...	237	4,099
A. Hay and Other Forage, Pasture, Range......................	49	1,132
1. Production...	49	1,132
a. Seedbed preparation and planting.......................		
b. Selection and use of improved varieties and strains......	18	404
c. Use of fertilizers and lime............................		
d. Harvesting, storing and curing.........................	10	283
e. Efficient work methods................................		
f. Other questions.......................................	21	445
2. Farm marketing..		
a. Preparation for marketing.............................		
b. Commodity outlook and market information...............		
c. Arranging to sell and selling..........................		
d. Other questions.......................................		
B. Tobacco..	4	49
1. Production...	4	49
a. Seedbed preparation and planting.......................	1	14
b. Selection and use of improved varieties and strains......		
c. Use of fertilizers and lime............................		
d. Harvesting, storing and curing.........................	1	16
e. Efficient work methods................................		
f. Other questions.......................................	2	19
2. Farm marketing..		
a. Preparation for market................................		
b. Commodity outlook and market information...............		
c. Arranging to sell and selling..........................		
d. Other questions.......................................		
C. Oil and Sugar Crops.......................................	11	123
1. Production...	11	123
a. Seedbed preparation and planting.......................		
b. Selection and use of improved varieties and strains......		
c. Use of fertilizers and lime............................		
d. Harvesting, storing and curing.........................		
e. Efficient work methods................................		
f. Other questions.......................................	11	123
2. Farm marketing..		
a. Preparation for market................................		
b. Commodity outlook and market information...............		
c. Arranging to sell and selling..........................		
d. Other questions.......................................		

TABLE 23.--Continued.

Classified by subjects	Items	Total indications
D. Fruits and Nuts..	33	446
1. Production..	33	446
a. Seedbed preparation and planting.........................	2	15
b. Selection and use of improved varieties and strains......	6	137
c. Use of fertilizers and lime.............................		
d. Harvesting, storing and curing..........................		
e. Efficient work methods.................................	1	30
f. Other questions..	24	264
2. Farm marketing...		
a. Preparation for market.................................		
b. Commodity outlook and market information................		
c. Arranging to sell and selling..........................		
d. Other questions..		
E. Vegetables, including Potatoes & Herbs......................	64	1,139
1. Production..	64	1,139
a. Seedbed preparation and planting.........................		
b. Selection and use of improved varieties and strains......	3	63
c. Use of fertilizers and lime.............................		
d. Harvesting, storing and curing..........................	5	87
e. Efficient work methods.................................		
f. Other questions..	56	989
2. Farm marketing...		
a. Preparation for market.................................		
b. Commodity outlook and market information................		
c. Arranging to sell and selling..........................		
d. Other questions..		
F. Flowers, Ornamental Shrubs and Shade Trees..................	39	498
1. Production..	39	498
a. Seedbed preparation and planting.........................	2	47
b. Selection and use of improved varieties and strains......	20	235
c. Use of fertilizers and lime.............................		
d. Harvesting, storing and curing..........................		
e. Efficient work methods.................................	1	12
f. Other questions..	16	204
2. Farm marketing...		
a. Preparation for market.................................		
b. Commodity outlook and market information................		
c. Arranging to sell and selling..........................		
d. Other questions..		
G. Popcorn...	1	26
1. Production..	1	26
a. Seedbed preparation and planting.........................		
b. Selection and use of improved varieties and strains......		
c. Use of fertilizers and lime.............................		
d. Harvesting, storing and curing..........................		
e. Efficient work methods.................................		
f. Other questions..	1	26
2. Farm marketing...		
a. Preparation for market.................................		
b. Commodity outlook and market information................		
c. Arranging to sell and selling..........................		
d. Other questions..		

TABLE 23.--Continued

Classified by subjects	Items	Total indications
H. Crops in General..	35	686
1. Production..	35	686
a. Seedbed preparation and planting......................	9	143
b. Selection and use of improved varieties and strains......	3	45
c. Use of fertilizers and lime.............................		
d. Harvesting, storing and curing.........................	3	86
e. Efficient work methods.................................	3	93
f. Other questions..	17	319
2. Farm marketing...		
a. Preparation for market.................................		
b. Commodity outlook and market information................		
c. Arranging to sell and selling..........................		
d. Other questions..		
IV. LIVESTOCK..	136	2,757
A. Dairy Animals and Products..............................	25	560
1. Production..	25	560
a. Selection and breeding.................................	6	129
b. Feeding..	5	104
c. Efficient work methods.................................		
d. Labor, housing and management..........................	7	174
e. Other questions..	7	153
2. Farm marketing...		
a. Preparation for market.................................		
b. Commodity outlook and market information................		
c. Arranging to sell and selling..........................		
d. Other questions..		
B. Poultry and Products....................................	33	757
1. Production..	32	723
a. Selection and breeding.................................	5	95
b. Feeding..	6	141
c. Efficient work methods.................................		
d. Labor, housing and management..........................	5	131
e. Other questions..	16	366
2. Farm marketing...		
a. Preparation for market.................................		
b. Commodity outlook and market information................		
c. Arranging to sell and selling..........................		
d. Other questions..		
C. Beef Cattle...	13	283
1. Production..	12	263
a. Selection and breeding.................................	6	121
b. Feeding..	1	25
c. Efficient work methods.................................	1	26
d. Labor, housing and management..........................		
e. Other questions..	4	91
2. Farm marketing...		
a. Preparation for market.................................		
b. Commodity outlook and market information................		
c. Arranging to sell and selling..........................		
d. Other questions..		
D. Sheep, Goats and Products...............................	16	330
1. Production..	16	330
a. Selection and breeding.................................	3	67

TABLE 23.--Continued.

Classified by subjects	Items	Total indications
b. Feeding....................................		
c. Efficient work methods......................	1	25
d. Labor, housing and management...............		
e. Other questions.............................	12	238
2. Farm marketing................................		
a. Preparation for market......................		
b. Commodity outlook and market information....		
c. Arranging to sell and selling...............		
d. Other questions.............................		
E. Swine...	9	206
1. Production....................................	9	206
a. Selection and breeding......................	2	49
b. Feeding.....................................	1	19
c. Efficient work methods......................	1	22
d. Labor, housing and management...............	1	30
e. Other questions.............................	4	86
2. Farm marketing................................		
a. Preparation for market......................		
b. Commodity outlook and market information....		
c. Arranging to sell and selling...............		
d. Other questions.............................		
F. Other Livestock and Products....................	19	288
1. Production....................................	19	288
a. Selection and breeding......................	3	53
b. Feeding.....................................	1	25
c. Efficient work methods......................	1	16
d. Labor, housing and management...............	4	86
e. Other questions.............................	10	108
2. Farm marketing................................		
a. Preparation for market......................		
b. Commodity outlook and market information....		
c. Arranging to sell and selling...............		
d. Other questions.............................		
G. Livestock in General............................	21	377
1. Production....................................	21	377
a. Selection and breeding......................	4	74
b. Feeding.....................................	8	160
c. Efficient work methods......................		
d. Labor, housing and management...............		
e. Other questions.............................	9	143
2. Farm marketing................................		
a. Preparation for market......................		
b. Commodity outlook and market information....		
c. Arranging to sell and selling...............		
d. Other questions.............................		
V. INSECTS, DISEASES AND PARASITES OF PLANTS AND ANIMALS, NEMATODES, WEEDS, RODENTS AND NOXIOUS WILDLIFE...............	341	5,085
A. Insects...	167	3,012
1. Beekeeping, apiculture........................	4	81
2. Beneficial insects............................	1	20
3. Insect identification and general insect problems.........	36	673
4. Insects affecting small grains[1].............	3/1	45/19
a. Wheat.......................................	2	26

See footnotes at end of table.

TABLE 23.--Continued.

Classified by subjects	Items	Total indications
b. Oats...		
c. Barley...		
d. Rye..		
e. Rice...		
5. Insects affecting corn and sorghums........................	9	151
6. Insects affecting forage crops.............................	11	196
a. Alfalfa..	7	136
b. Clovers..	2	32
c. Other legumes..		
d. Pasture, range and other forage plants....................	2	28
7. Insects affecting cotton and other fiber crops.............	6	62
8. Insects affecting tobacco..................................	11	46
9. Insects affecting fruit crops[1]...........................	10/3	156/47
a. Stone fruits..	1	21
(1) Peaches...	1	21
(2) Cherries..		
(3) Apricots..		
(4) Plums...		
(5) Other...		
b. Pome fruits...	1	24
(1) Apples..	1	24
(2) Pears...		
(3) Other...		
c. Citrus fruits...	1	7
d. Berries...	1	27
(1) Raspberries...		
(2) Blackberries..		
(3) Strawberries..	1	27
(4) Other berries...		
e. Grapes..	1	9
f. Nut crops...	2	21
10. Insects affecting man.....................................	5	109
a. Mosquitoes, gnats...	4	90
b. Flies...		
c. Fleas...		
d. Lice..		
e. Ticks...		
f. Chiggers..	1	19
g. Other...		
11. Insects affecting household...............................	11	290
a. Roaches, ants, earwigs....................................	3	84
b. Fabric pests..		
c. Pantry pests..		
d. Bedbugs...	1	31
e. Fleas...	1	31
f. Termites, other woodworking insects.......................		
g. Other...	6	144
12. Insects affecting animals[1]..............................	23/3	54/449
a. Horses..	2	44
b. Cattle..	5	131
c. Sheep, goats..	3	50
d. Swine...	4	54
e. Poultry...	6	116
f. Other...		

See footnotes at end of table.

TABLE 23.--Continued.

Classified by subjects	Items	Total indications
13. Insects affecting truck and garden crops...................	24	416
a. General garden pests..................................	3	76
b. Peas and beans......................................	5	85
c. Cucumbers..	1	14
d. Potatoes...	1	25
e. Sweetpotatoes......................................	1	12
f. Tomatoes, peppers, eggplant.........................	4	54
g. Onions...	1	22
h. Cabbage and related plants..........................	2	40
i. Sweet corn...	3	54
j. Other..	3	34
14. Insects affecting ornamental and nursery plants...........	3	56
15. Insects affecting flower garden and greenhouse plants.....	6	136
16. Forest and shade tree insects.............................		
17. Insects affecting stored grain............................		
18. Insecticides and insect control equipment.................	7	126
B. Plant Diseas..	85	884
1. Diseases of small grains[1].............................	9/5	142/106
a. Wheat...	1	12
b. Oats..	1	6
c. Barley..	1	10
d. Rye...		
e. Rice..	1	8
2. Diseases of corn and sorghums..........................	3	33
3. Diseases of forage crops..............................	4	43
a. Alfalfa...	1	12
b. Clover..	1	9
c. Pasture, range and other forage plants.............	2	22
4. Diseases of cotton and other fiber plants..............	2	16
5. Diseases of tobacco...................................	2	17
6. Disease of fruits and nuts[1].........................	13/4	152/27
a. Stone fruits......................................	2	34
(1) Peaches......................................	1	12
(2) Cherries.....................................	1	22
(3) Apricots.....................................		
(4) Plums..		
(5) Other..		
b. Pome Fruits[1]....................................	5/1	71/18
(1) Apples.......................................	3	52
(2) Pears..		
(3) Other..	1	1
c. Berries...	2	20
(1) Raspberries..................................		
(2) Blackberries.................................		
(3) Strawberries.................................	2	20
(4) Other berries................................		
7. Diseases of vegetable and garden crops.................	15	186
a. Peas and beans....................................	3	18
b. Cucumbers...	1	4
c. Potatoes..	1	32
d. Sweetpotatoes.....................................	2	33
e. Tomatoes, peppers, eggplant........................	1	32
f. Onions..	2	22
g. Cabbage and related plants.........................	1	31

See footnotes at end of table.

TABLE 23.--Continued.

Classified by subjects	Items	Total indications
h. Sweet corn...		
i. Other...	4	14
8. Diseases of ornamentals and nursery plants.................	4	30
9. Diseases of flower garden and greenhouse plants...........	14	64
10. Diseases of forest and shade trees........................	2	37
11. Other plant diseases......................................	17	164
12. Fungicides and fungicide application equipment............		
C. Animal Diseases and Parasites..............................	74	911
1. Diseases...	68	828
a. Bacterial...		
b. Mycotic...		
c. Non-infectious..		
d. Viral...		
e. Rickettsial...		
f. Nutritional deficiencies................................		
g. Other...	68	828
2. Parasites..	6	83
a. Helminth..	6	83
(1) Nemahelminthes...		
(2) Platyhelminthes..		
(3) Other..	6	83
D. Nematodes..	6	101
E. Weeds[1]..	10/7	177/113
1. In small grains...		
a. Wheat...		
b. Oats..		
c. Barley..		
d. Rye...		
e. Rice..		
f. Other..		
2. Corn or sorghums...		
3. Forage crops..	2	54
a. Alfalfa...	2	54
b. Clovers...		
c. Other legume crops......................................		
d. Pasture, range or other forage crops....................		
4. Cotton or other fiber crops...............................		
5. Tobacco..		
6. Fruit and nut crops..		
7. Garden crops..	1	10
a. General garden weeds....................................	1	10
b. Peas and beans..		
c. Cucumbers...		
d. Potatoes..		
e. Sweetpotatoes...		
f. Tomatoes, peppers, eggplant.............................		
g. Onions..		
h. Cabbage and related plants..............................		
i. Sweet corn..		
j. Other truck and garden crops...........................		
8. Ornamental and nursery plantings..........................		
9. Flower gardens and greenhouses............................		
10. Forests...		
11. Lawns...		

See footnotes at end of table.

TABLE 23.--Continued.

Classified by subjects	Items	Total indications
12. Roadsides, ditch banks..		
13. Aquatic weeds...		
14. Herbicides and herbicide applicators.......................		
F. Rodents...		
1. Rats..		
2. Mice..		
3. Ground squirrels...		
4. Other..		
G. Noxious Wildlife..		
1. Mammal...		
2. Birds..		
3. Other..		
VI. MARKETING, DISTRIBUTION AND FARM AND HOME SERVICE ORGANIZATIONS..		
A. Marketing and Purchasing Cooperative.......................		
1. Organizational questions.................................		
2. Financial questions......................................		
3. Operational.questions....................................		
4. Public relations and memberships.........................		
B. Farm and Home Service Cooperatives.........................		
1. Organizational questions.................................		
2. Financial questions......................................		
3. Operational questions....................................		
4. Public relations and memberships.........................		
C. Marketing Products Through Roadside or Other Farm Retail Markets..		
1. Agricultural products....................................		
2. Home products (arts, crafts, etc.).......................		
D. Other Questions...		
VII. SOIL AND WATER CONSERVATION AND MANAGEMENT, FORESTRY AND WILDLIFE...	84	1,932
A. Soil Management...	37	769
1. Land use...	7	165
2. Soil testing...		
3. Use of soil amendments (lime, sulfur, gypsum trace elements, etc.)..	16	262
4. Use of fertilizers (commercial and barnyard).............	5	138
5. Production of soil-improvement crops.....................		
6. Crop rotations...		
7. Land clearing..	1	34
8. Other questions..	8	170
B. Water Management..	47	1,163
1. Contour and strip cropping...............................		
2. Terracing..		
3. Grass waterways..		
4. Water supply, storage and distribution...................	4	109
5. Drainage...	5	101
6. Irrigation...	30	778
7. Other questions..	8	175
C. Farm Forestry..		
1. Planting forest trees (windbreaks, shelterbelts, erosion control, Christmas trees, etc.)............................		

TABLE 23.--Continued.

Classified by subjects	Items	Total indications
2. Timber-stand improvement (thinning, weeding and pruning forest and woodland trees)...............................		
3. Timber-harvesting (includes selective and other recommended cutting for forest products)...........................		
4. Estimating and appraising..................................		
5. Production of maple sirup or naval stores.................		
6. Treating wood products with preservatives (fence posts and building timbers)..		
7. Marketing of forest products (includes markets and timber-selling)...		
8. Fire prevention...		
9. Woods diseases..	1	2
10. Woods insects..	1	27
11. Other questions..	2	62
D. Wildlife..		
1. Construction and management of ponds for fish.............		
2. Making food and cover plantings for wildlife.............		
3. Protection of wildlife areas from fire or livestock........		
4. Other questions..	2	18
E. General Nature Study and Conservation.....................		
VIII. PLANNING AND MANAGEMENT OF THE FARM BUSINESS...............	29	496
A. Keeping and Analyzing Farm Records........................	3	69
B. Developing an Overall Farm Plan...........................	8	159
C. Making Needed Annual Plans................................		
D. Developing Supplemental Sources of Income.................	1	20
E. Obtaining and Using Credit................................	1	15
F. Buying or Renting a Farm..................................	3	41
G. Legal Aspects of the Farm Business........................	10	139
1. Leases...	9	125
2. Workmen's compensation and insurance.....................	1	14
3. Laws, regulations, inspections...........................		
H. Income Tax Accounting, Social Security and Related Questions...		
I. Other Questions..	3	53
IX. FARM BUILDINGS AND MECHANICAL EQUIPMENT......................	132	3,434
A. Arrangement of Farm Building Layout.......................		
B. Construction of Farm Buildings............................	39	985
1. Dairy buildings..	4	95
2. Beef buildings...		
3. Sheep buildings..		
4. Swine buildings..		
5. Poultry buildings..	7	184
6. Machinery sheds..		
7. Crops storage and processing.............................	2	65
8. Other farm buildings.....................................	10	156
9. Other questions..	16	485
C. Remodeling or Repairing Farm Buildings....................		
1. Dairy buildings..		
2. Beef buildings...		
3. Sheep buildings..		
4. Swine buildings..		
5. Poultry buildings..		

TABLE 23.--Continued.

Classified by subjects	Items	Total indications
6. Machinery sheds...		
7. Crops storage and processing................................		
8. Other farm buildings..		
9. Other questions...		
D. Selection or Construction of Farm-Building Equipment........	47	1,273
1. Livestock equipment...	10	286
2. Crops handling, grinding and testing........................	15	426
3. Refrigeration, ventilating, drying and heating.............	18	450
4. Other questions...	4	110
E. Mechanical Equipment (Used Outside Farm Buildings)..........	33	843
1. Selection of farm mechanical equipment......................	12	271
2. Developing labor-saving devices and equipment...............	3	100
3. Use, care and repair of farm mechanical equipment...........	18	472
4. Other questions...		
F. Electrical Equipment for Income-Producing Purposes..........	9	239
G. Other Engineering...	4	94
1. Roads, bridges and culverts.................................	2	22
2. Gates and fences..	1	41
3. Other questions...	1	31
X. HOUSE AND SURROUNDINGS, FURNISHINGS AND EQUIPMENT...........	149	4,658
A. House...	8	2,611
1. Building a new house..	18	543
2. Remodeling or repairing the house...........................	5	164
3. Improving kitchen or laundry................................	6	200
4. Improving storage space.....................................	11	391
5. Water and sewage systems....................................	10	339
6. Heating and cooling systems.................................	13	422
7. Electrical systems..	13	433
8. Other questions...	4	119
B. Landscaping Plans for Home Grounds (Also Industrial)........	16	274
C. Home Equipment (Other Than Sewing Equipment)................	20	706
1. Selection, use and care[1]..................................	20/5	706/177
a. Ranges...	4	146
b. Washers, ironers and dryers................................	2	73
c. Refrigerators and freezers.................................	2	70
d. Cleaning equipment...	1	37
e. Utensils...	2	61
f. Other questions..	4	142
D. Home Furnishings..	33	1,067
1. Selection, use and care[1]..................................	21/2	658/63
a. Furniture...	4	142
b. Rugs..	2	56
c. Slipcovers..	2	47
d. Window accessories..	3	83
e. Lighting equipment..	2	55
f. Other questions...	6	212
2. Repair and reconditioning...................................		
a. Refinishing furniture.....................................		
b. Reseating chairs..		
c. Upholstery..		
d. Accessories...		
3. Other questions...	12	409
a. Furniture arrangement and accessories.....................		

See footnotes at end of table.

TABLE 23.--Continued.

Classified by subjects	Items	Total indications
b. Color schemes and wall finishes............................	6	204
c. Floor finishes...	6	205
d. Other questions...		
XI. HOME MANAGEMENT AND FAMILY ECONOMICS.........................	30	1,067
A. Home Management..	15	548
1. General management..	3	100
2. Improving housekeeping methods............................	4	146
3. Family laundering and stain removal.......................	6	219
4. Other questions...	2	83
B. Family Economics..	15	519
1. Outlook information.......................................		
2. Family financial planning................................	14	504
3. Keeping and analyzing home records........................		
4. Family legal matters......................................	1	15
5. Other questions...		
XII. CLOTHING..	51	1,435
A. Selecting and Buying Clothing.............................	31	934
1. General selection...	2	66
2. Ready-made clothes..	18	522
3. Fabrics for clothing construction.........................	11	346
4. Other questions...		
B. Care and Mending of Clothing..............................	4	106
1. Care..	2	66
2. Mending...	2	40
3. Other questions...		
C. Clothing Construction.....................................	13	400
1. General construction......................................	4	193
2. Pattern alteration and fitting...........................	6	137
3. Dress forms...		
4. Tailoring...	2	46
5. Remodeling..	1	24
6. Other questions...		
D. Sewing Equipment and Sewing Centers.......................	2	62
1. Selection, use and care...................................	2	62
a. Sewing machines and supplies.............................	1	22
b. Using the sewing machine.................................		
c. Other sewing equipment...................................		
d. Sewing centers...	1	40
e. Other questions..		
E. Grooming and Posture (Personal Appearance)................	1	33
XIII. FOODS AND NUTRITION..	88	2,728
A. Food Preparation (How to Cook)............................	34	993
1. Meats...	4	123
2. Vegetables..	6	199
3. Desserts..	3	69
4. Breads and rolls..	3	82
5. Cereals...		
6. Salads..	1	27
7. Casseroles and other one-dish meals.......................	1	28
8. Outdoor cooking...	1	28
9. Other...	15	437

TABLE 23.--Continued

Classified by subjects	Items	Total indications
B. Meal Planning (By Meal or Day)................................	14	481
1. Family meals..	14	481
2. Group meals...		
C. Food Preservation..	18	515
1. Canning...	1	29
a. Meats..	1	29
b. Fruits...		
c. Vegetables...		
d. Fair canning.......................................		
e. General..		
f. Other..		
2. Freezing..	12	358
a. Meats..	8	225
b. Fruits...		
c. Vegetables...		
d. Cooked foods.......................................		
e. General..	3	101
f. Other..	1	32
3. Pickling..	1	34
4. Preserving and jelling................................		
5. Other...	2	45
6. General...	2	49
D. Food Spoilage..		
1. Canned..		
2. Frozen..		
3. Other...		
E. Nutrition..	12	408
1. Use of food in body (4 food groups)...................	7	245
2. Improving diets.......................................		
3. Special diets...	5	163
a. Weight control.....................................	2	68
b. Diabetes...		
c. High blood pressure................................		
d. Other..	3	95
F. Food Habits..	1	37
G. Food Value and Composition...................................	3	105
H. Food Selection and Buying....................................	3	91
1. Meats...		
2. Vegetables..		
3. Fruits..		
4. General...	3	91
5. Other...		
I. Family Food Supply (Month or Year)...........................		
J. Miscellaneous Foods Questions................................	3	98
XIV. HEALTH, FAMILY LIFE AND SAFETY.............................	15	353
A. Health..	5	72
1. Sanitation practices and facilities...................	5	72
2. First aid and home nursing............................		
3. Health education leading to physical examination by a physician..		
4. Dental health education...............................		
5. Mental health education...............................		
6. General health education..............................		

TABLE 23.--Continued.

Classified by subjects	Items	Total indications
7. Communicable diseases...		
8. Other questions..		
B. Family life...	3	87
1. Child development and guidance..............................		
2. Play clothing and equipment.................................		
3. Understanding roles of family members and strengthening family relationships..		
4. Individual adjustments and personality development..........		
5. Hospitality (includes etiquette and party planning)........		
6. Indoor home recreation (includes handicrafts)..............		
7. Outdoor home recreation (includes handicrafts).............		
8. Other questions...	3	87
C. Safety..	7	194
1. Fire prevention (farm and home)............................	3	119
2. Accident prevention (farm and home)........................	2	34
3. Accident prevention (away from home).......................		
4. Other questions...	2	41
XV. COMMUNITY DEVELOPMENT AND PUBLIC AFFAIRS.....................	1	17
A. Understanding of Citizenship Responsibilities and Functions of Government...		
B. County and Community Improvement Clubs, Councils, Committees for Program Planning and Special Purposes....................		
1. 4-H Club Questions..		
C. Community Problems..	1	17
1. General..		
2. Health facilities, services and programs...................		
3. Schools..		
4. Churches...		
5. Town-county relations......................................		
6. Libraries...		
7. Roads...		
8. Telephones..		
9. Community centers..		
10. Recreation programs and facilities.........................		
11. Community beautification...................................		
12. Other questions...	1	17
D. Regional or Area Development work...........................		
E. National Programs and Proposals Affecting Agriculture and Rural Life..		
F. World Affairs..		
XVI. MISCELLANEOUS..		
TOTALS.......................................	1,330	28,923

[1] The number on the left edge of the columns is the total for the category; the number on the right edge of the columns is the number of general items not fitting under any of the specific headings.

CHAPTER VII

COMPARISON OF THE METHODS STUDIED

The committee based its comparison of the methods for determining publication needs on a basic assumption and a basic question:

Basic Assumption: The need of the public for information is the basis on which the U. S. Department of Agriculture and the State Land-Grant Colleges should decide what publications to issue and the number of copies to print. This includes the need for publications dealing with new discoveries and publications needed to carry on educational programs and to carry out provisions of new laws and regulations.

Basic Question: How can we best determine the needs of the public for information?

WAYS OF COLLECTING DATA

There are many ways of collecting data on the informational needs of the public. However, they fall into two main types:

1. Find out what information the people say that they need.

2. Find out what information that lay leaders, professional workers, and others say that people need.

Two of the six methods studied are of the first type. They are: (1) questions people ask county extension agents, and (2) information that people request by mail from the USDA. The other four are of the second type: (3) publications county extension agents say are needed, (4) county extension plans of work, (5) county extension program projection reports, and (6) publications that State extension specialists say are needed.

The first two methods (type 1) reveal "felt needs" for which people seek help. At the same time some people have "felt" (recognized) needs but do not seek help on them for reasons known only to themselves.

The other four methods (type 2) reveal the needs recognized by lay leaders, professional workers and others. These four methods may detect both the needs of great concern to the public and those not yet recognized by the public. The degree to which leaders and professional workers understand the everyday problems of the public will determine the reliability with which they reflect the public's recognized needs.

WAYS OF COMPARING METHODS

Two questions were asked in comparing the different methods of determining publications needs:

1. How <u>valid</u> is each method for specific purpose?

2. How <u>practical</u> is each method in relation to each of the other methods: how easy is it to use--how much does it cost?

Five criteria were used in comparing the different methods. Use of the criteria provide a measure of both the validity and practicality of each method for different purposes, and an overall measure of the validity and practicality of the method.

The five criteria are:

1. Requests of the public for information.

2. Program needs.

3. Breadth of need.

4. Depth of detail.

5. Feasibility.

1. <u>Requests of the public for information</u>: Demand for anything is always a criterion for determining supply needed. The requests of the public for information help to determine the kind and quantity to be made available.

2. <u>Program needs</u>: Educational programs are based on the needs of the public as seen by lay leaders, professional personnel and others. The needs may or may not be recognized by the general public. Information is published to help implement these programs. This criterion includes emergency needs (floods, tornadoes, disease outbreaks, etc.), needs important to a limited segment of the population (tobacco growing, rice growing, etc.), and Government and State program needs (price supports, cotton referendum, etc.)

3. <u>Breadth of need</u>: The breadth of need for the information helps measure the number of copies to print. It shows volume. A publication having wide potential use and applying to many people would have priority over a publication having limited potential use and applying to a few people, <u>other things being equal</u>. (See tables of classification of needs in the reports.)

4. <u>Depth of detail</u>: The more detailed and specific the request for information, the more useful it is in determining needed content of a publication.

Example: Diseases and parasites of plants and animals   Least specific
Plant diseases
Diseases of vegetable and garden crops
Diseases of tomatoes   Most specific

The number of blanks in the third and fourth subcategories of the completed classification list for each of three methods indicates the lack of detail of information obtained by the methods, as shown in the following table. County questions gave more detailed information as shown by the smaller number (82) in the third and fourth subcategories of the classification list. In contrast county plans of work gave less detailed information as shown by 338 blanks in the same subcategories.

TABLE 24.--COMPARISON OF THREE METHODS[1] ON LEVEL OF DETAIL OF NEEDS

Classification list level	Number of blanks on classification list		
	County plans of work	Mail analysis	County questions
Tnird level (Arabic number).................	104	87	10
Fourth level (Lower-case letters)............	234	195	72
TOTAL.......................	338	282	82

[1] This analysis cannot be applied to the recommendations of the State extension specialists. Their recommendations were limited to ARS-USDA publications and did not include their opinion of State publication needs.

5. Feasibility: How practical is the method considering time, cost, complex versus simple procedures, information easy to get versus difficult?

These 5 criteria for comparing methods are like the items on a score card: The first four provide a basis for judging the relative validity of each method. The fifth-- feasibility--is the basis for deciding how practical the method is to use, considering other points to be equal.

A set of forced choices was used in applying these five criteria. Since Method 3 (county extension agents' suggestions for publications), and Method 5 (county program projection reports) yielded insufficient data to draw conclusions, only four methods were compared.

Each of the four methods studied was measured by criterion 1--the requests of the public for information--in the following manner: "Which one of each of the following pairs of methods is better than the other method in the pair for getting the requests of the public for information? For example, in the first pair which method shows better the public's request for information--the questions people ask county extension agents or the county extension plans of work? Check one."

1. ___a. county questions   4. ___a. county plans of work
   ___b. county plans of work   ___b. mail analysis

2. ___a. county questions   5. ___a. county plans of work
   ___b. mail analysis   ___b. specialists' suggestions

3. ___a. county questions   6. ___a. mail analysis
   ___b. specialists' suggestions   ___b. specialists' suggestions

This forced-choice pattern was used with each of the other criteria. See exhibit A, page 121 for the forced-choice pairs for each criterion. The number of times each method was preferred over the other methods was totaled. This gave a score for each method by each criterion used.

COMPARISON OF EACH METHOD

Now let's compare the four methods as judged independently by committee members on the basis of the five criteria:

1. Requests of the public for information: Methods 1 and 2--people's questions and mail requests--show best the kind of information that people say they need. These two methods show recognized needs on which people seek help from these two sources.

The other two methods, county extension plans of work and State extension specialists' suggestions, show what information that agents, leaders, and specialists think people need now and in the future. These are both recognized and unrecognized needs of people. But it is impossible to determine from the data the degree to which these two methods accurately reflect needs recognized by the people.

Study of the data reveals significant differences between the information that people say that they need (recognized needs) and the information that leaders, agents and specialists say that the public needs. For example:

In the field of farm management (1) <u>one-half</u> of the questions that people asked county extension agents were about income tax and social security; (2) but the county extension plans of work showed only <u>one-fourth</u> of the emphasis to be on income taxes and social security.

On the other hand, county extension plans of work gave <u>40%</u> of their emphasis in farm management to farm planning, while only <u>8%</u> of the questions people asked county agents were on farm planning.

So, if we want to know what information <u>that people say they want</u>--their questions are our best guide.

2. <u>Program needs</u>: Obviously the questions that people ask only partially reflect this criterion. Situations or problems may be apparent to leaders or professional workers but not yet to the general public. Or there may be new information known only by professional workers that is important in carrying out educational programs. For example, information on a new chemical or new farm legislation.

In the judgment of the committee, <u>Method 4 (county plans of work)</u> and Method 6 (extension specialists' suggestions) are the best sources of information about <u>program needs.</u>

3. <u>Breadth of need</u>: How many people want the information? All four methods gave some indication, but <u>Method 1 (the questions people ask extension agents) and Method 2 (mail requests) are by far the most specific.</u> These two methods show the percentage of people asking for specific information.

Specialists' suggestions show the number of specialists who feel certain information is needed in their States, but not how many people they think need this information. The same is true of county extension plans of work. This method shows the number of counties needing certain information but not the number of people needing it.

4. <u>Depth of detail</u>: How much do people want to know about the subject? <u>Method 1 (questions people ask extension agents)</u> again gives the <u>best answer</u>. It provides by far the most specific information about detail desired. For example, in the classification of information in the study, <u>Method 1 gave 87 percent</u> of the possible detail in the classification scheme. <u>Method 2 (mail requests) gave 55 percent</u> of the possible detail, while Method 3 (county extension plans of work) gave <u>only 46 percent</u> of the possible detail.

5. <u>Feasibility</u>: From the standpoint of ease of obtaining information, the committee's ranking of the four methods is: <u>First, Method 6</u>, specialists' suggestions; <u>second, Method 4</u>, county extension plans of work; <u>third, Method 2</u>, mail requests; and <u>fourth, Method 1</u>, questions people ask county extension agents.

Since detailed figures are not available on the amount of time and effort required to collect and analyze the data for each method, application of the feasibility criterion was based on the committee's experience in working with these methods, and on its judgment.

In making its judgment, the committee considered the feasibility of collecting the data, classifying the cards, and analyzing and tabulating the data.

Method 1 required the most time for collecting data because of procedure required to do the job and the number of questions asked of extension agents. Method 2 was next in the amount of time required. Methods 6 and 4, in this order, required the least amount of time in collecting data.

Methods 1 and 2, in this order, required the most time for classifying the cards because of the larger number of cards involved. Methods 6 and 4, respectively, required the least amount of time.

Analyzing and tabulating the data required about the same amount of time for each of the four methods.

Table 25 shows the committee's scoring of each method by each criterion and the total score for each method. The higher the score, the better the method.

We would like to urge that you make your own test of validity and practicality of each method studied. To do this, use the same forced-choice test and same criteria given here. You may also wish to apply these criteria to other methods you are now using for determining publication needs, and compare these with the methods reported in this study.

TABLE 25.--NUMBER OF TIMES EACH METHOD WAS JUDGED BETTER THAN ANOTHER METHOD ON EACH CRITERION

(Figures are cumulative totals of committee judging)

Methods of obtaining data	Criteria for judging methods					
	1. Requests of the public for information	2. Program needs	3. Breadth of need	4. Depth of detail	5. Feasibility	Total
1. County questions	18	7	18	18	5	66
2. County plans of work...	6	14	6	3	11	40
3. Mail analysis.......	12	0	10	12	7	41
4. Specialists' suggestions.....	0	15	2	3	13	33

EXHIBIT A

RATING OF THE FOUR METHODS BY FIVE CRITERIA

Criterion No. 1

Requests of the Public for Information:

Which one of each of the following pairs of methods is better than the other method in the pair for getting the requests of the public for information? Note that each of the four methods is paired with each of the other methods for Criterion No. 1. Check one method of each pair.

For example, in the first pair which method shows better the public's request for information, the questions people ask county extension agents or the county extension plans of work? Check one.

1. _____ a. County questions

    _____ b. County plans of work

2. _____ a. County questions

    _____ b. Mail analysis

3. _____ a. County questions

    _____ b. Specialists' suggestions

4. _____ a. County plans of work

    _____ b. Mail analysis

5. _____ a. County plans of work

    _____ b. Specialists' suggestions

6. _____ a. Mail analysis

    _____ b. Specialists' suggestions

Criterion No. 2

Program Needs:

Which one of each of the following pairs of methods shows program needs better than the other method in the pair? Note that each of the four methods is paired with each of the other methods for Criterion No. 2. Check one method of each pair.

For example, in the first pair which method shows the program needs better, the county questions or the county plans? Check one.

1. _____ a. County questions

    _____ b. County plans of work

2. _____ a. County questions

    _____ b. Mail analysis

3. _____ a. County questions

    _____ b. Specialists' suggestions

4. _____ a. County plans of work

    _____ b. Mail analysis

5. _____ a. County plans of work

    _____ b. Specialists' suggestions

6. _____ a. Mail analysis

    _____ b. Specialists' suggestions

Breadth of Need:

Which one of each of the following pairs of methods shows <u>breadth of need</u> better than the other method in the pair? Note that each of the four methods is paired with each of the other methods for Criterion No. 3.

For example, in the first pair which method shows the <u>breadth of need</u> of the data better, the county questions or the county plans? Check one.

1. _____ a. County questions   4. _____ a. County plans of work

     _____ b. County plans of work   _____ b. Mail analysis

2. _____ a. County questions   5. _____ a. County plans of work

     _____ b. Mail analysis   _____ b. Specialists' suggestions

3. _____ a. County questions   6. _____ a. Mail analysis

     _____ b. Specialists' suggestions   _____ b. Specialists' suggestions

Criterion No. 4

Depth of Detail:

Which one of each of the following pairs of methods gives more <u>detailed (specific) needs</u> than the other method in the pair? Note that each of the four methods is paired with each of the other methods for Criterion No. 4. Check one method of each pair.

For example, in the first pair which method gives more <u>detailed (specific) needs</u>, the county questions or the county plans? Check one.

1. _____ a. County questions   4. _____ a. County plans of work

     _____ b. County plans of work   _____ b. Mail analysis

2. _____ a. County questions   5. _____ a. County plans of work

     _____ b. Mail analysis   _____ b. Specialists' suggestions

3. _____ a. County questions   6. _____ a. Mail analysis

     _____ b. Specialists' suggestions   _____ b. Specialists' suggestions

<u>Feasibility</u>:

Which one of each of the following pairs of methods is more <u>practical</u> to use than the other method in the pair in determining the needs of the public for information? Note that each of the four methods is paired with each of the other methods for Criterion No. 5. Check one method of each pair.

For example, in the first pair which method is more <u>practical</u> to use, the county questions or the county plans? Check one.

1. ___ a. County questions

   ___ b. County plans of work

2. ___ a. County questions

   ___ b. Mail analysis

3. ___ a. County questions

   ___ b. Specialists' suggestions

4. ___ a. County plans of work

   ___ b. Mail analysis

5. ___ a. County plans of work

   ___ b. Specialists' suggestions

6. ___ a. Mail analysis

   ___ b. Specialists' suggestions